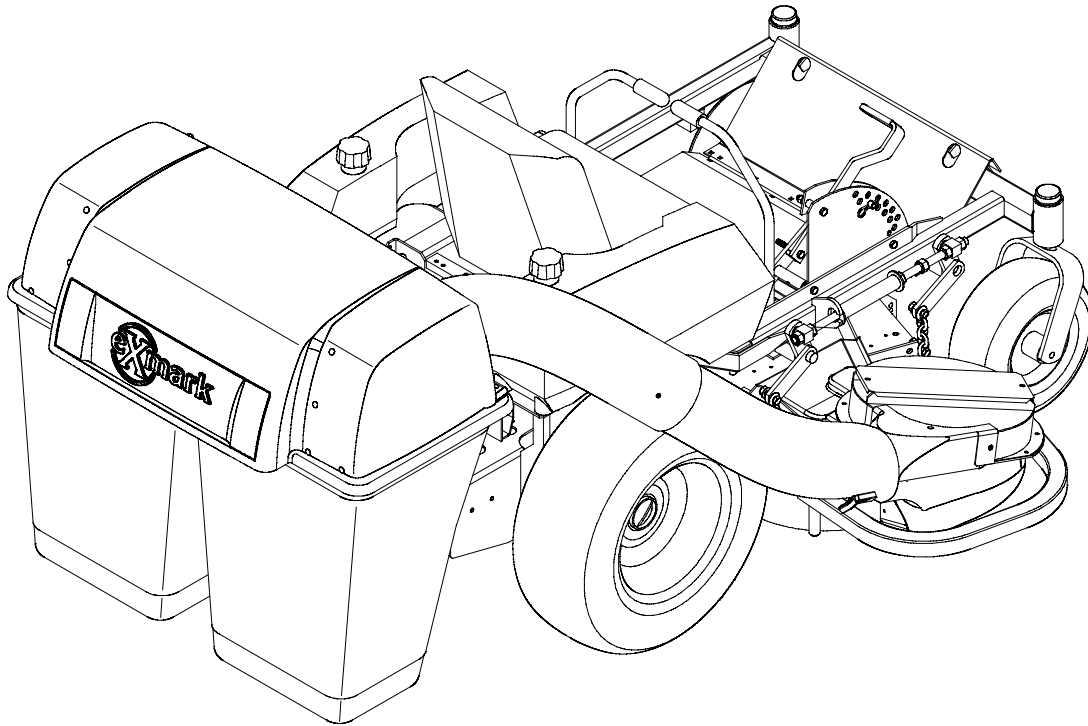


For Serial Nos.
320,000 & Higher



ULTRA VAC™

OPERATOR'S & PARTS MANUAL

CONGRATULATIONS on the purchase of your new Exmark equipment. This product has been carefully designed and manufactured to give you a maximum amount of dependability and years of trouble-free operation.

If additional information is needed, or should you require trained mechanic service, contact your authorized Exmark equipment dealer or distributor.

If you need to order replacement parts from your dealer, always give the model number and serial number of your equipment as well as the part number, description and quantity of the part needed.

The Serial No. plate is located on the rear of the blower assembly.

For ease of ordering and reference, we suggest that you record the information requested in the following identification table.

Model No. _____

Serial number _____

Date Purchased _____

Paste Label From
Literature Packet Here

 **WARNING**

POTENTIAL HAZARD

- ◆ This product is a piece of power equipment.

WHAT CAN HAPPEN

- ◆ Failure to follow safe operating practices can result in serious operator injury or even death.

HOW TO AVOID THE HAZARD

- ◆ Keep all shields, guards and safety devices (especially the grass discharge system) in place and in proper working condition.
- ◆ Stop engine and wait for all moving parts to stop. Remove spark plug wire(s) or remove key before adjusting, servicing, or performing maintenance.
- ◆ If mower deck becomes clogged, stop engine and wait for all moving parts to stop. Remove spark plug wire(s) or remove key before cleaning blockage.
- ◆ Keep hands, feet and clothing away from power driven parts.
- ◆ Keep off mower unless seat platform is provided.
- ◆ Keep others off mower.

Exmark reserves the right to make changes or add improvements to its products at any time without incurring any obligation to make such changes to products manufactured previously. Exmark, or its distributors and dealers, accept no responsibility for variations which may be evident in the actual specifications of its products and the statements and descriptions contained in this publication.

EXMARK PARTS PLUS® PROGRAM

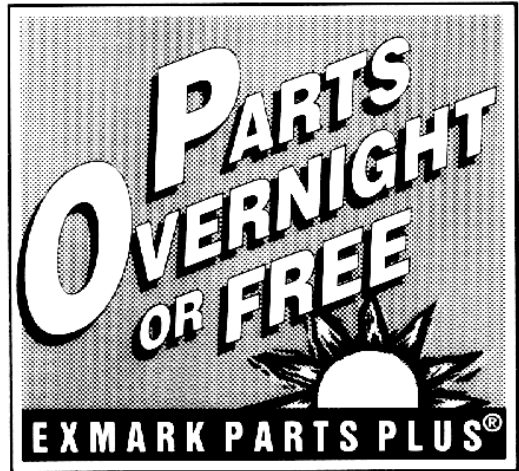
EFFECTIVE DATE: September 1, 1995

Program

If your Exmark dealer does not have the Exmark part in stock, Exmark will get the parts to the dealer the next business day or the part will be FREE* Guaranteed!!

How the Program Works

1. If dealer does not have part in stock for a "down" unit at the time of request by customer, the dealer contacts his distributor by 1:00 p.m., local time, and requests Exmark Parts Plus® shipment of six (6) line items or less.
2. Distributor ships part(s) to dealer or customer, as requested by dealer, same day, overnight UPS Distributor bills dealer for part and freight charges where applicable.
3. If distributor does not have the part(s) in stock to satisfy Exmark Parts Plus® order, he contacts Exmark by 3:00 p.m., central time, with an Exmark Parts Plus® order of six (6) line items or less.
4. If order is received by 3:00 p.m. central time, Exmark ships part(s) direct to dealer or customer, as requested by distributor, same day, overnight UPS Exmark bills the distributor for parts and shipping charges, where applicable.
5. The customer pays for the part and freight if it is shipped under the Exmark Parts Plus® and if it arrives in accordance to the program.
6. Who pays for the part and freight if it fails to arrive overnight in accordance to the program?
 - A. Under any circumstance the customer does not pay.
 - B. If the part does not arrive overnight due to:
 1. The dealer not submitting the Exmark Parts Plus® order to his Exmark distributor by 1:00 p.m., the dealer pays for the part and freight.
 2. The Distributor being unable to ship the part the same day or not submitting the Exmark Parts Plus® order to Exmark by 3:00 p.m., central time, the Distributor pays for the part and freight.
 3. Exmark being unable to ship the part and the Exmark parts order is received by 3:00 p.m., central time, Exmark pays for the part and freight.
 4. If the part does not arrive overnight due to the shipper (UPS), the shipper pays for the freight and Exmark pays for the part.



The following restrictions apply -- The Exmark Parts Plus® Program is available only through participating Exmark Dealers and applies only to orders submitted on this program Monday through Thursday. Parts Plus service is available only in the 48 contiguous United States. UPS has initiated a Saturday delivery program to many areas of the continental United States and can be requested for an overnight shipment on Friday to be delivered Saturday. The next day air charge, plus the Saturday delivery fee will be the responsibility of the purchaser. Exmark Mfg. will assume no responsibility for Saturday delivery shipments. To qualify, all Exmark Parts Plus® orders must be received by Exmark by 3:00 p.m., central time. Orders must be six (6) line items or less. Exclusions from the Exmark Parts Plus® Program are: Any wholegood or accessory in its entirety, engines and engine replacement parts, 5-speed Peerless transmissions and 5-speed transaxles, hydraulic or hydrostatic wheel motors, cutter decks and engine decks or any item exceeding United Parcel Service size and weight restrictions.

Due to UPS restrictions, aerosol spray paint is considered a hazardous material and cannot be shipped via UPS next day or Second Day Air.

Exmark Manufacturing stocks a limited supply of parts for transaxles, pumps and wheel motors. These parts can be ordered for Next Day Air shipment but will not be guaranteed per the Parts Plus Program.

OPERATOR'S MANUAL

This manual contains assembly, operating, maintenance, adjustment and safety instructions for your Exmark Ultra Vac.

BEFORE OPERATING YOUR ULTRA VAC, CAREFULLY READ AND UNDERSTAND THIS MANUAL AND THE OPERATOR'S MANUAL FOR YOUR MOWER IN THEIR ENTIRETY.

By following the operating, maintenance and safety instructions, you will prolong the life of your Ultra Vac, maintain its maximum efficiency and promote safe operation.

If additional information is needed, or should you require trained mechanic service, contact your authorized Exmark equipment dealer or distributor.

All Exmark equipment dealers and distributors are kept informed of the latest methods of servicing and are equipped to provide prompt and efficient service in the field or at their service stations. They carry ample stock of service parts or can secure them promptly for you from the factory.


All Exmark parts are thoroughly tested and inspected before leaving the factory, however, attention is required on your part if you are to obtain the fullest measure of satisfaction and performance.

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1. SAFETY

1.1 SAFETY ALERT SYMBOL

This SAFETY ALERT SYMBOL  is used both in this manual and on the machine to identify important safety messages which must be followed to avoid accidents. This symbol means:

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

The safety alert symbol appears above information which alerts you to unsafe actions or situations and will be followed by the word **DANGER**, **WARNING**, or **CAUTION**.

DANGER: Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

WARNING: Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.


CAUTION: Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury.

1.2 TRAINING

- 1.2.1 Regard the Exmark Ultra Vac as a piece of power equipment and teach this regard to all who operate this unit.
- 1.2.2 Before operating your Ultra Vac, carefully read and understand this manual and the operator's manual for your mower in their entirety. Familiarize yourself with the controls and the proper use of the equipment. If the operator(s) or mechanic(s) can not read English, it is the owner's responsibility to explain this material to them.
- 1.2.3 Do not allow operation of this machine by untrained personnel. Never allow children, teenagers, or people unfamiliar with these instructions to use the mower. Local regulations may restrict the age of the operator.
- 1.2.4 Avoid mowing while people, especially children, or pets, are nearby. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

1.3 PREPARATION

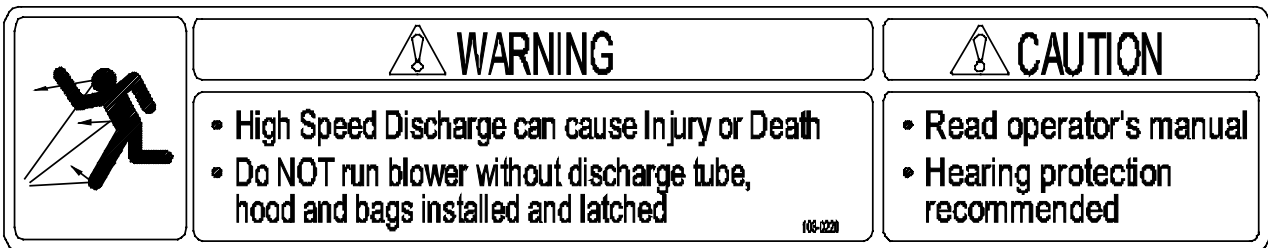
- 1.3.1 Evaluate the terrain to determine what accessories and attachments are needed to properly and safely perform the job. Only use accessories and attachments approved by Exmark.
- 1.3.2 The use of personal protective equipment, such as (but not limited to) protection for the eyes, ears, feet, and head is recommended.

 CAUTION	
POTENTIAL HAZARD	◆ This machine produces sound levels in excess of 85 dBA at the operator's ear when in operation.
WHAT CAN HAPPEN	◆ Exposure to sound levels of 85 dBA or above for extended periods of time can cause hearing loss.
HOW TO AVOID THE HAZARD	◆ Wear hearing protection when operating this machine.

- 1.3.3 While mowing, always wear substantial footwear and long trousers. Do not operate equipment when barefoot or when wearing open sandals.
- 1.3.4 Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wires, bones, and other foreign objects which may damage the equipment or cause personal injury to the operator or bystanders.

1.4 SAFETY SIGNS

- 1.4.1 Keep all safety signs legible. Remove all grease, dirt and debris from safety signs and instructional labels.
- 1.4.2 Safety signs must be replaced if they are missing or illegible.
- 1.4.3 When new components are installed, be sure that current safety signs are affixed to the replaced components.
- 1.4.4 New safety signs may be obtained from your authorized Exmark equipment dealer or distributor or from Exmark Mfg. Co. Inc.
- 1.4.5 Safety signs may be affixed by peeling off the backing to expose the adhesive surface. Apply only to a clean, dry surface. Smooth to remove any air bubbles.
- 1.4.6 Familiarize yourself with the following safety signs and instruction labels. They are critical to the safe operation of your Exmark Ultra Vac.



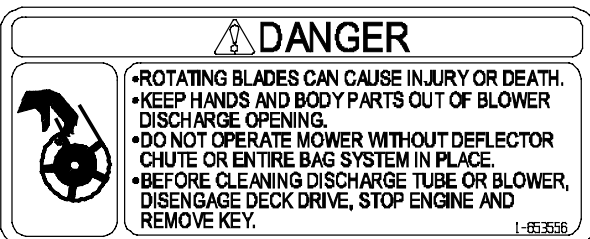
PART NO. 103-0220
LOCATION: Top of Blower



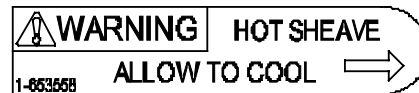
PART NO. 1-653554
LOCATION: Rear of Bags



PART NO. 103-0878
LOCATION: Top of Weights
Top of Blower



PART NO. 1-653556
LOCATION: Side of Blower Housing (2 Places)



PART NO. 1-653558
LOCATION: Top of Idler Arm

2. SPECIFICATIONS

2.1 MODEL NUMBER:

LHPUV4448

Use with drive kit: 44" deck – 103-1315
 48" deck – 103-1313 (Lazer Z HP Serial Nos. below 203,376)
 48" deck – 103-1314 (Lazer Z HP Serial Nos. 203,376 & higher)

Note: Lazer Z HP model LHP4818KC Serial Nos. below 176621 will also require adapter kit 130-0328

LHPUV52

Use with drive kit: 52" deck – 103-1317

LZUV52

Use with drive kit: 52" deck – 103-1076

Note: Lazer Z models with serial numbers below 260,000 will also require adapter kit 103-1369.

LZUV60

Use with drive kit: Lazer Z with 60" deck – 103-0466
 Lazer Z XP with 60" deck – 103-1112

LZUV72

Use with drive kit: Lazer Z with 72" deck – 103-0903
 Lazer Z XP with 72" deck – 103-1113

Note: Lazer Z models with serial numbers below 260,000 will also require adapter kit 103-0538.

2.2 DIMENSIONS

2.2.1 Overall unit length w/ Ultra Vac

Lazer Z HP		
44" Deck	91.76"	(233.1 cm)
48" Deck	91.76"	(233.1 cm)
52" Deck	93.00"	(236.2 cm)

Lazer Z XP		
60" Deck	107.90"	(274.1 cm)
72" Deck	112.00"	(284.5 cm)

Lazer Z - Air Cooled		
52" Deck	105.70"	(268.5 cm)
60" Deck	106.65"	(270.9 cm)
72" Deck	110.75"	(281.3 cm)

Lazer Z - Liquid Cooled		
52" Deck	106.00"	(269.1 cm)
60" Deck	106.90"	(271.5 cm)
72" Deck	111.00"	(281.9 cm)

2.2.2 Overall unit width w/ Ultra Vac

Lazer Z HP		
44" Deck	58.47"	(148.5 cm)
48" Deck	61.73"	(159.8 cm)
52" Deck	66.47"	(168.8 cm)

Lazer Z and Lazer Z XP		
52" Deck	66.85"	(169.8 cm)
60" Deck	74.44"	(189.1 cm)
72" Deck	86.49"	(219.7 cm)

2.3 BAGGING SYSTEM

2.3.1 Weight: Lazer Z HP -110 lbs. (50 kg)

Lazer Z and Lazer Z XP – 52" Deck – 220 lbs. (100 kg) includes weight kit
 60" Deck – 290 lbs. (132 kg) includes weight kit
 72" Deck – 237 lbs. (108 kg) includes weight kit

2.3.2 Collections bins: Commercial grade, cloth mesh bags with reinforced bottoms.

Capacity: All Lazer Z HPs and Lazer Z 52" - 8 bushels (2 bags and hood)
 All 60 and 72" decks – 13.4 bushels (3 bags and hood)

2.3.3 Dump Mechanism: Manual lift off

2.3.4 Blower tube: fixed, abrasion resistant molded polyethylene

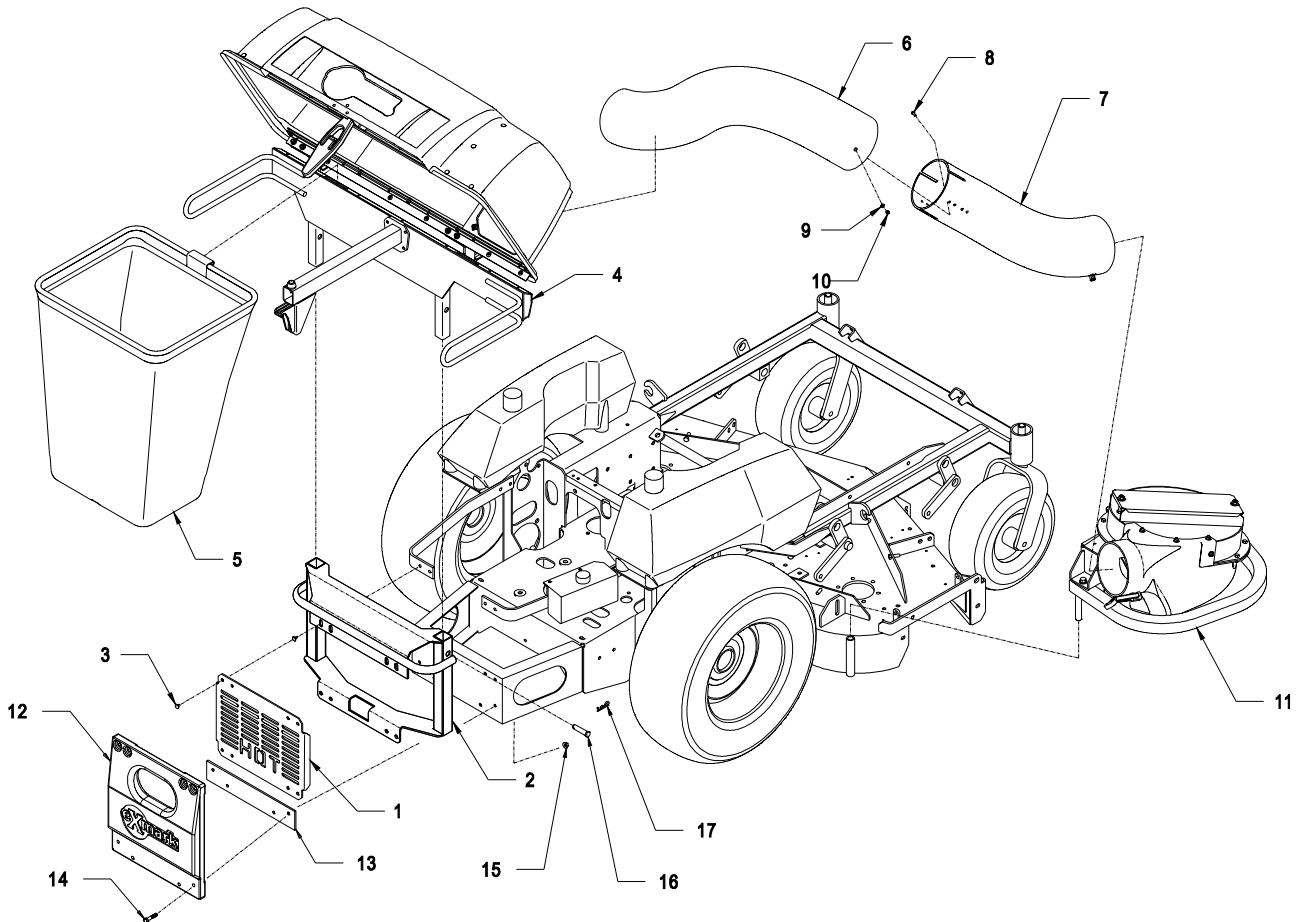
2.3.5 Impeller: 5-bladed, 0.25" thick abrasion resistant steel, with vertical axis.

Impeller bearings: 1" (2.54 cm) sealed "non-greaseable bearings"

3. ASSEMBLY INSTRUCTIONS – LAZER Z HP (See Section 4 for Lazer Z and Lazer Z XP)

3.1 ASSEMBLY DIAGRAM

Ref. No.	Qty	Description
1	Ref	Engine Guard 44,48 only
2	1	Bagger Mount Weldment
3	8	5/16 – 18 X 1.00 Hex Head Screw
4	1	Hood Assembly
5	2	Bag Assembly
6	1	Upper Tube
7	1	Lower Tube Assembly
8	3	#10 – 24 X .75 Truss Head Screw
9	3	#10 Flat Washer
10	3	#10 – 24 Nyloc Nut
11	1	Blower Assembly
12	Ref	Rear Weight 52 only
13	Ref	Spacer 52 only
14	8	5/16 – 18 X 1.75 Hex Head Screw
15	4	5/16-18 x 18 Whizlock Nut
16	2	Clevis Pin
17	2	Hair Pin



3.2 INSTALL DRIVE KIT

1. Install drive kit (PN 103-1313, 103-1314, 103-1315, or 103-1317 depending on deck size) per the instructions included in the kit.

NOTE: The original belt shield stud must be removed for belt clearance.

3.3 INSTALL HOOD ASSEMBLY AND BAGS

44 and 48 inch units (52 inch units skip to step 3)

Note: When installing Ultra Vac on Lazer Z HP model LHP4818KC with serial numbers below 176621, refer to additional necessary instructions included in adapter kit 103-0328.

1. Remove and discard the (8) bolts that retain the “HOT” engine guard shield (Item 1). Keep the nuts for use in Step 2.
2. Install the Bagger Mount Weldment (Item 2) and engine guard shield using the 5/16-18 x 1 Screws provided (Item 3) and whizlock nuts removed in step 1. Continue at step 6.

52 inch units

3. Remove and discard the (8) bolts that retain the rear weight (Item 12). Keep the whizlock nuts for use in step 5.
4. Install the Bagger Mount Weldment (Item 2) to the rear of the frame using (4) 5/16 – 18 X1.00 screws (Item 3) and (4) 5/16 – 18 whizlock nuts (Item 15). Use only the bottom four holes on the Bagger Mount Weldment
5. Install the Rear Weight (Item 12) and spacer (Item 13) from the drive kit using the (8) 5/16 – 18 X1.75 screws (Item 14) and whizlock nuts removed in step 3.

All units

6. Slide tube ends of Hood Assembly (Item 4) into the tubes of the mount weldment. Install (2) clevis pins (Item 16) through holes in tubes. Retain with (2) Hair Pins (Item 17).
7. Hang the (2) Bag Assemblies (Item 5) from the slots in the Bagger Upright. Close and latch hood.

3.4 ASSEMBLE TUBES

Note: When installing Ultra Vac on Lazer Z HP model LHP4818KC with serial number below 176621, refer to additional necessary instructions included in adapter kit 103-0328.

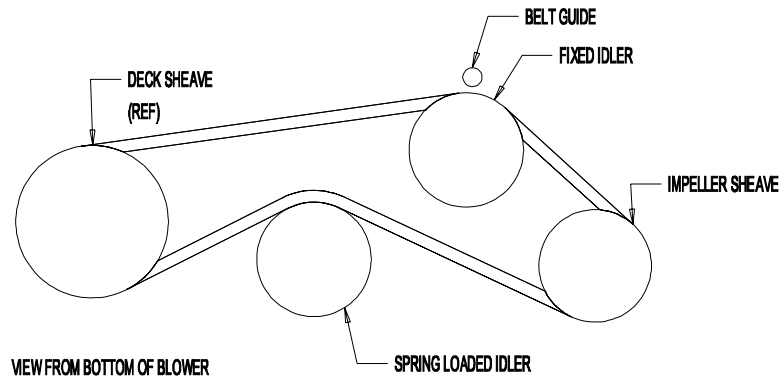
1. Assemble the Upper (Item 6) and Lower (Item 7) Tubes using the (3) #10-24 x .75 Truss head Screws (Item 8), (3) #10 washers (Item 9), and (3) #10-24 Nyloc Nuts (Item 10). Screw head should be installed to the inside of the tube to provide minimum obstruction to flow. Make sure the hole with the arrow on the Upper Tube aligns with the dimple in the Lower Tube to place the turnout on the Upper Tube in the correct position.

For units with a 44” deck: Slide Upper Tube over Lower Tube until edge of Upper Tube matches up with dimple in Lower Tube labeled 44.

For units with a 48” & 52” deck: Slide Upper Tube over Lower Tube until edge of Upper Tube matches up with dimple in Lower Tube labeled 48, 52.


3.5 INSTALL BLOWER ASSEMBLY

1. Remove the belt guide on the blower (Item 11). (See Figure 1)
2. Install the belt (from the Drive Kit) onto the Blower Assembly (Item 11) as shown.



**FIGURE 1
BELT ROUTING**

3. Reinstall the belt guide removed in Step 1.
4. Remove Discharge chute by pulling the hairpin and chute pivot pin (from the Drive Kit installed in section 3.2).
5. Remove the Belt Cover on the right side of the deck. Install the Blower by inserting the mounting pin into the tube welded to the rear corner of the deck. Pivot the blower until the front pin engages the slot in the deck. Adjust the position of the front pin if necessary to engage the slot. Use the latch to lock the blower in this position. Adjust tension on latch to draw blower up to deck, yet allow release by hand.
6. Pull the idler release handle and install the belt in the upper groove of the deck sheave.
7. Install the Belt Cover using the two knobs. Install the discharge tube assembly by slipping the upper end into the hood, then sliding the lower end over the blower discharge opening. Use the latch to retain the lower end to the blower.
8. Follow the operation instructions in Section 5 to run the unit. Run the unit with the blades and blower engaged for 2 minutes. Disengage the blades, shut off the motor, and remove the key.
9. Remove the belt cover and check to make sure that the belt is riding near the center of the flat idler on the idler arm. If the belt is not riding near the center of the idler, remove the blower, and bend the idler arm slightly. Reinstall the blower and belt cover and perform steps 8 and 9 again to verify belt position.

 DANGER	
POTENTIAL HAZARD	
◆ There are rotating blades in the blower and under the mower deck.	
WHAT CAN HAPPEN	
◆ Blade contact can cause serious operator or bystander injury or even death.	
HOW TO AVOID THE HAZARD	
◆ Keep hands and feet out of blower openings and out from under the mower or mower deck.	
◆ Shut off the deck drive, stop engine and wait for all moving parts to stop. Remove spark plug wire(s) or remove key before performing any work around blower or deck.	



WARNING

POTENTIAL HAZARD

- ◆ An uncovered discharge opening will allow objects to be thrown in operator's or bystander's direction. Also, contact with blade could occur.

WHAT CAN HAPPEN

- ◆ Thrown objects or blade contact can cause serious injury or kill you or bystanders.

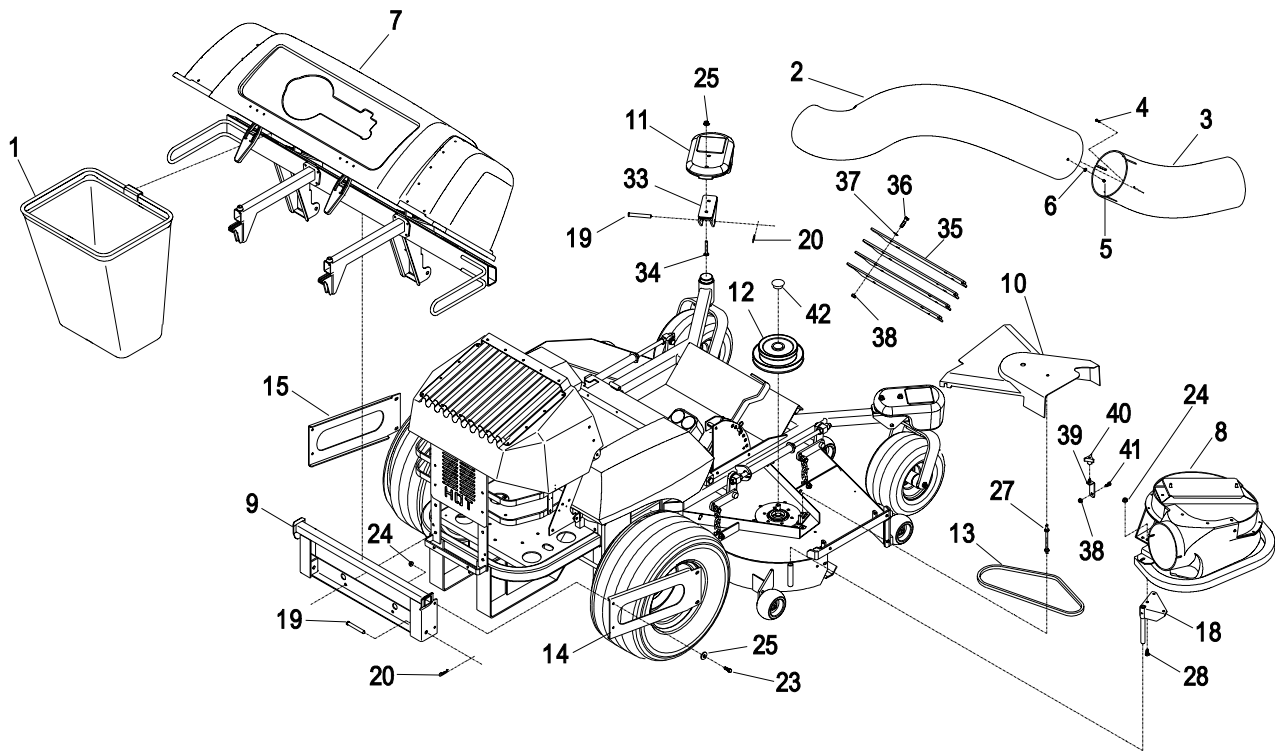
HOW TO AVOID THE HAZARD

- ◆ Never operate mower unless discharge chute or entire grass collection system is installed.

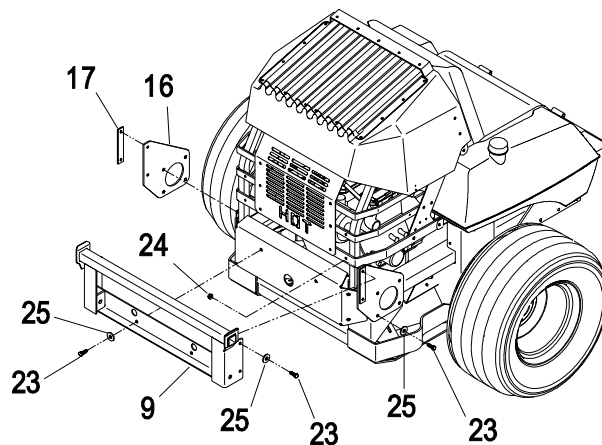
4. ASSEMBLY INSTRUCTIONS – LAZER Z & LAZER Z XP

4.1 ASSEMBLY DIAGRAM

Ref . No.	Description	Qty (52 LZ)	Qty (60 & 72 LZ)	Qty (60 & 72 XP)
1	Bag Assembly	2	3	3
2	Upper Tube	1	1	1
3	Lower Tube	1	1	1
4	#10-24 X .62 CRPH Screw	3	6	6
5	#10-24 Nyloc Nut	3	6	6
6	#10 Flat Washer	3	6	6
7	Hood Assembly	1	1	1
8	Blower Assembly	1	1	1
9	Bagger Mount Weldment	1	1	1
10	Belt Cover	1	1	1
11	Removable Weight	2	2	2
12	Jackshaft	1	1	1
13	Blower Drive Belt	1	1	1
14	Frame Bracket RH	1	1	
15	Frame Bracket LH	1	1	
16	Frame Bracket XP			2
17	XP Mount Spacer			2
18	Mount Pin Weldment		1	1
19	Clevis Pin	4	4	4
20	Hair Pin (large)	4	4	4
21	Chute Pivot Pin	1	1	1
22	Hair Pin (small)	1	1	1
23	3/8-16 x 1.00 Hex Screw	8	8	10
24	3/8 Whizlock Nut	8	11	13
25	3/8 Spring Disk Washer	12	12	14
26	Filler Plate (small)	1		
27	Belt Shield Stud		1	1
28	3/8-16 x .75 Hex Screw		3	3
29	Belt Cover Spacer		1	
30	7/16 Spring Disk Washer		2	
31	Washer – ¼ thick	2	2 – 60 only	
32	3/8-16x3.25 Tap Bolt	2	2 – 60 only	
33	Weight Bracket	2	2	2
34	3/8-16 Square Head Bolt	4	4	4
35	Weight Plate	4	4	4
36	5/16-18 x 1.50 Hex Screw	4	4	4
37	5/16 Flat Washer	4	4	4
38	5/16-18 Whizlock nut	6	4	4
39	Belt Cover Support	2		
40	Knob	1		
41	5/16-18 x .75 Hex Screw	2		
42	Plug	1	1	1



LAZER Z ASSEMBLY DIAGRAM



LAZER Z XP ASSEMBLY DIAGRAM

Items 21,22,26, 29, 30, 31 and 32 not shown. See figure 1 for installation of 31 and 32.
 See figure 5 for installation of 29 and 30. See figure 8 for installation of 21 and 22.

- 52" Lazer Z units with serial numbers below 260,000 require the use of adapter kit 103-1369. Follow the instructions included in the kit when noted in the following steps.
- 72" units below serial number 260,000 require the deck to be modified by adding the accessory mounting tube. Exmark kit 103-0583 contains the parts and templates to do this.

4.2 INSTALL THE HOOD ASSEMBLY AND BAGS

Lazer Z units only (Lazer Z XP units skip to step 6)

1. When installing the Ultra Vac onto a liquid cooled Lazer Z, the rear bumper plate must be removed. Remove rear bumper plate. Use two of the original bolts, washers and whizlock nuts to attach the lower side bumper bars to the vertical "HOT" engine guard shield.
2. Remove the lower two bolts holding the clutch guard plate ("HOT" engine guard on liquid cooled units) to the rear frame of the Lazer Z unit. Units with serial numbers below 160,000 will require disassembly of the clutch strap spacers to remove these bolts.
3. On units with serial numbers above 190,000 install the mount weldment (Item 9) loosely to the rear of the machine using the two bolts and nuts removed in step 2.

For units with serial numbers below 190,000, install washers (Item 31) between the bagger mount weldment and clutch guard when installing the bagger mount weldment. This will provide for proper alignment of the mount holes with the holes in the bagger hood assembly. See figure 1.

For units with serial numbers below 160,000, remove the two tap bolts that tie the clutch straps to the clutch guard and replace with new tap bolts (Item 32). These units also require the use of the washers (Item 31) between the bagger mount weldment and the clutch guard. These parts should be installed when the bagger mount weldment is installed on the rear of the unit. See figure 1.

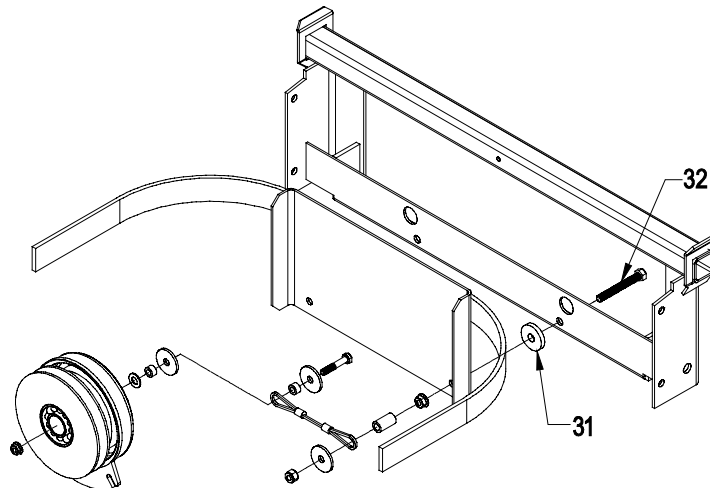



FIGURE 1

4. Jack the rear of the unit up and safely support it on jack stands. Remove the rear wheels.

 CAUTION	
POTENTIAL HAZARD	◆ Relying solely on mechanical or hydraulic jacks to support the mower could be dangerous.
WHAT CAN HAPPEN	◆ The mechanical or hydraulic jacks may not be enough support or may malfunction allowing the unit to fall, which could cause injury.
HOW TO AVOID THE HAZARD	◆ DO NOT rely solely on mechanical or hydraulic jacks for support. Use adequate jack stands or equivalent support.

5. Install the side plates (Items 14 and 15) loosely to the mount weldment and the wheel channels of the Lazer Z frame. The flanges on the side plates should face in towards the unit to provide the maximum tire clearance. Use the 3/8-16 x 1.00 bolts (Item 23), 3/8 spring disk washers (Item 25) and 3/8-16 whizlock nuts (Item 24). Make sure that the raised portion of the spring disk washer faces the head of the bolt. On 52 and 60 inch units, the lower bolt on the wheel channel is best installed by positioning the nut behind the hole using a deep socket and turning the bolt through the hole into the nut.

Lazer Z XP units only (Lazer Z units continue at step 8)

6. Install mount weldment (Item 9) loosely to the rear bumper using the two holes provided. Use the 3/8-16 x 1.00 bolts (Item 23), 3/8 spring disk washers (Item 25) and 3/8-16 whizlock nuts (Item 24).
7. Install the side plates (Item 16) and spacers (Item 17) loosely to the mount weldment and the mounting pads on the Lazer Z XP frame. Use the 3/8-16 x 1.00 bolts (Item 23), 3/8 spring disk washers (Item 25) and 3/8-16 whizlock nuts (Item 24). Make sure that the raised portion of the spring disk washer faces the head of the bolt.

All Units

8. Tighten all the hardware, starting with the bolts that hold the mount weldment to the rear of the unit and working forward.
9. On Lazer Z units, reinstall the rear wheels and lower the unit from the jack stands.
10. Apply a light coat of grease to the front and rear of the upper tube of the mount weldment. Install the hood assembly (Item 7) onto the mount by slipping the hook portion over the top mounting tube of the mount weldment. Secure the assembly to the mount using the clevis pins (Item 19) and hairpins (Item 20).
11. Install the bag assemblies (Item 1) by inserting the hook portion into the slots in the cross bar of the hood assembly.

4.3 INSTALL BLOWER ASSEMBLY

1. Lower the deck fully. Remove the right hand belt cover. Remove the belt cover mounting stud that protrudes from the deck.
2. Remove the deck drive belt from around the right hand spindle sheave.
3. Support the right mower blade and shaft so that it will not fall out of the deck when the right sheave nut is removed.
4. Remove the right sheave nut, spring disk washer, and sheave from the spindle shaft.

NOTE: On units with wrench flats on the spindle just above the blade use a 1-inch wrench on the flat sides of the spindle shaft to prevent the spindle from turning. On units that do not have a wrench flat, block the blade rotation with a block of wood between the blade and baffles as indicated in the blade service section of the Lazer operator's manual. Do not use the blade bolt to prevent rotation.

5. Apply a light coat of grease to the top portion of the spindle shaft where the sheave mounts.
6. Install the double sheave (Item 12) onto the right spindle shaft. Install the spring disk washer and nut removed in Step 4. Torque the sheave nut to 75-80 ft. lbs. Make sure that the spring disk washer cone is installed towards nut. See Figure 2.

NOTE: On units with wrench flats on the spindle just above the blade use a 1-inch wrench on the flat sides of the spindle shaft to prevent the spindle from turning. On units that do not have a wrench flat, block the blade rotation with a block of wood between the blade and baffles as indicated in the blade service section of the Lazer Z operator's manual. Do not use the blade bolt to prevent rotation. Check blade bolt torque after completing this installation (115 – 120 ft. lbs.).

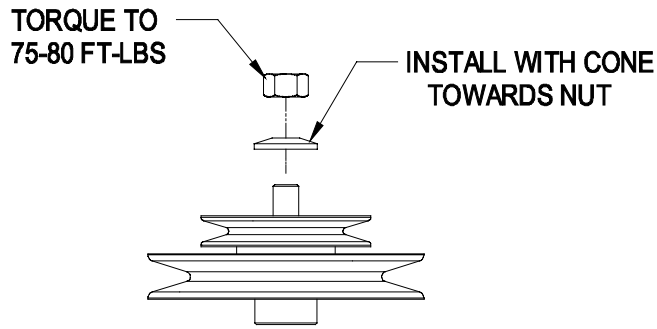
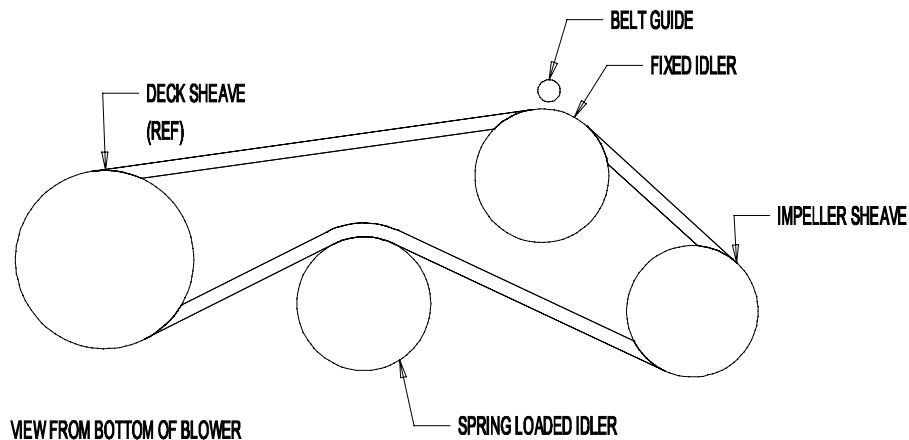


FIGURE 2

7. Re-install the deck drive belt in the lower groove of the double sheave. Install the plug (Item 24) into the bore of the double sheave.
8. Remove the discharge chute from the deck. Discard the mounting hardware, but save the discharge chute for use during side discharge operation. The chute pivot pin (Item 21) and hairpin (Item 22) may be stored in the pivot holes on the discharge chute during bagging operation.

52 inch units only (60 and 72 inch units skip to step 17)

9. Remove the belt guide on the blower (see Figure3)
10. Install the belt (Item 13) included in the completing kit onto the blower assembly as shown.
11. Reinstall the belt guide removed in step 9.



**FIGURE 3
BELT ROUTING**

12. If the Ultra Vac is being installed on a Lazer Z with a serial number less than 260,000, it is recommended to replace the steel blocker plate mounted across the bottom of the blower with the small filler plate included in the completing kit. Refer to figure on page 26, Items 48 and 49. Use the hardware that was removed when removing the large blocker plate. **Failure to install a blocker plate will create a thrown object hazard that could injure or kill bystanders, or cause property damage.** This modification should not be done if the Ultra Vac blower will be mounted on a Lazer Z with a serial number of 260,000 or higher.
13. The front right deck stiffener must be trimmed for belt clearance on 52" Lazer Z units. Measure and mark the deck stiffener per Figure 4. Trim off the indicated portion of the stiffener. Touch up the trimmed area with Exmark red touchup paint – P/N 1-850337.

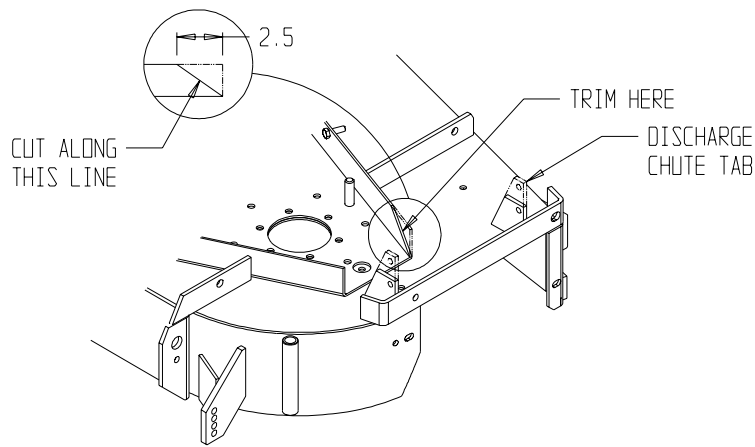


FIGURE 4

14. Using the knob that was removed with the original belt cover stud and the knob included with the completing kit (Item 40), mount the two belt cover supports (Item 39) to the plastic belt cover (Item 10). Position the belt cover on the mower deck. The lower ends of the belt cover supports should rest on the outside of the deck stiffeners. Mark the location of the belt cover support holes on the deck stiffeners. Remove the belt cover. Center punch and drill 3/8" holes.
15. Remove the belt cover supports from the belt cover and mount them to the deck using the 5/16-18 x .75 screws (Item 41) and whizlock nuts (Item 38).
16. Units with serial numbers below 260,000 will require modifications to the discharge chute tabs per the instructions in adapter kit 103-1369. Follow the instructions included in the kit before proceeding with the blower installation.

60 and 72 inch units only (52 inch units continue at step 21)

17. Install the belt cover mounting stud (Item 27) included in the Ultra Vac completing kit.

For 60 inch units only, install the spacer (Item 29), two 7/16 spring disk washers (Item 30) and the plastic knob as shown in Figure 5. The knob does not need to be tightened against the washers at this time.

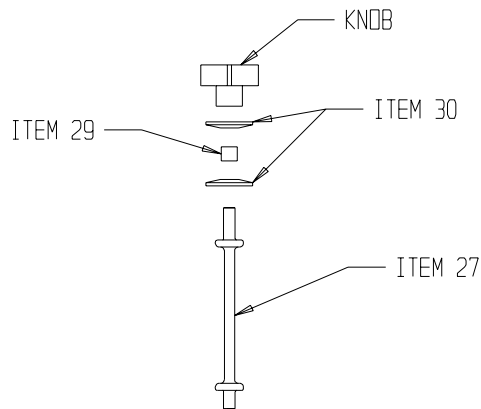


FIGURE 5

18. Install the mounting pin weldment (Item 18) to the blower assembly using the 3/8-16 x .75 bolts (Item 28) and whizlock nuts (Item 24). Maximum deck clearance will be provided if the bolts are installed from below the mounting pin. The mount pin can be installed in two positions. For 60 inch decks the pin should be installed as far away from the bumper end as possible. For 72 inch decks that pin should be installed close to the bumper end.
19. Install the belt (Item 13) onto the blower by working it around the impeller sheave.

20. 72" units below serial number 260,000 will require the deck to be modified by adding the accessory mounting tube. Exmark kit 103-0583 contains the parts and templates required. Follow the instructions in this kit. These decks will also require drilling the hole at the front upper corner of the discharge opening to ½ inch diameter. (See Figure 6). Touch up with red paint Exmark P/N 850337.

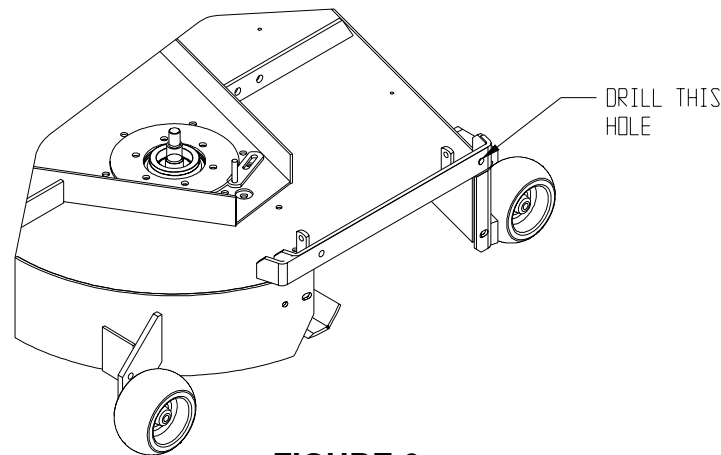


FIGURE 6

All units

21. Mount the blower on the deck by sliding the mounting pin into the tube at the rear right corner of the deck. Swing the blower closed. Adjust the position of the front pin to engage the slot in the front of the deck. Use the latch to lock the blower in this position. Adjust the tension on the latch to draw the blower up to the deck, yet allow for release by hand.
22. Pull the spring loaded idler back and slip the belt over the top sheave on the deck spindle.
23. Install the plastic belt cover (Item 10). On 60" units the outside end of the cover is slotted and can slip between the two washers assembled in step 17. The plastic knob does not need to be removed. On 72" and 52" units the cover has a hole, and the plastic knob must be installed after the cover has been positioned. **The original belt cover stud must be removed on 52" units.**

4.4 ASSEMBLE THE TUBES

1. Remove the six screws, nuts, and washers (Items 4,5,and 6) from the lower tube (Item 3) and slide the lower and upper tube (Item 2) together. The arrow on the upper tube should align with the dimple on the lower tube. On 60 and 72 inch units there are two sets of holes on the lower tube. The first set reached is for use with Lazer XP units. The second set reached is for Lazer Z units. Align the arrow on the upper tube with the dimple on the lower tube and slide them together until the proper set of holes is reached.
2. Fasten the upper and lower tubes together using three of the hardware sets removed from the lower tube in step 14. The heads of the screws must be inside the tube to prevent accumulation of grass inside the tube. The washer and the nut should be installed on the outside of the tube. On Lazer XP units, use the remaining three hardware sets to plug the exposed holes in the lower tube. On Lazer Z units, discard the remaining hardware sets.
3. Slip the upper end of the tube assembly into the hood opening. Slide the lower end of the tube assembly over the blower outlet and align the notch with the tube latch. Latch the tube to the blower.

4.5 INSTALL THE WEIGHT PLATES

1. The four weight plates (Item 35) must be installed under the front panel of the floor pan. These weights give proper balance to the machine when the removable portions of the bagger are removed.

2. Locate the position of the mounting holes. On machines with serial numbers less than 320,000, clamping a weight plate to the front of the floor pan (See Figure 7) does this. The ears on the weight plate should be towards the bottom (upside down from the actual mounted position). Align the bottom edge of the weight plate with the bottom edge of the floor pan front panel. Center the weight plate side to side. On machines with serial numbers 320,000 or higher the hole positions are indicated by tool marks on the floor pan. Mark the position of all four holes using a center punch.
3. Drill 3/8 inch holes at the points marked.
4. Open the floor pan and install the four weight plates behind the front panel using the 5/16-18 x 1.50 screws, 5/16 washers and 5/16-18 whizlock nuts (Items 36, 37, and 38). The weight plates will only fit with the ears located near the bend in the floor pan. The decal on the floor pan will still be visible with the weight plates mounted.

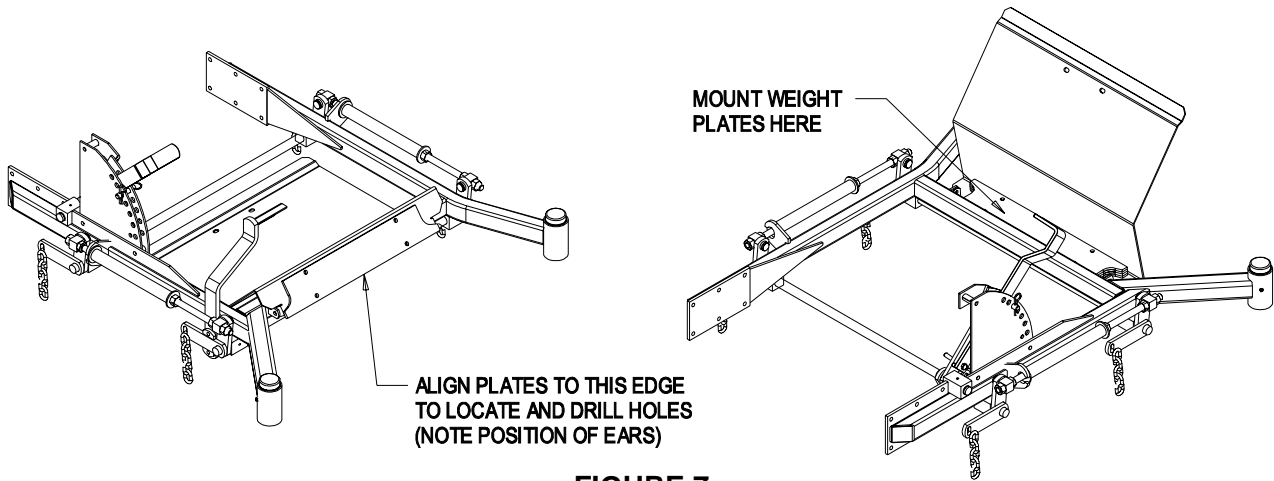


FIGURE 7
FLOORPAN WEIGHT INSTALLATION

4.6 INSTALL THE REMOVABLE WEIGHTS

Note: The removable weights are heavy. Use care when lifting them. Make sure that you can hold them securely before lifting them. Use caution when positioning your hands so that you do not set them down on your hands or fingers.

1. Assemble the weight brackets (Item 33) to the removable weights (Item 11) using the 3/8-16 square head bolts (Item 34) and 3/8 whizlock nuts (Item 25).
2. Install the removable weight assemblies over the caster arms. On 52 and 60 inch Lazer Z machines one weight has a wide mounting bracket and one has a narrow bracket. They will only fit the machine one way. Weights for the 60 Lazer XP and all 72s are interchangeable left and right.
3. Install a clevis pin (Item 19) and hairpin (Item 20) on each caster weight to retain them.
4. Tighten knob on weight assembly until the weight is clamped securely to the caster arm.

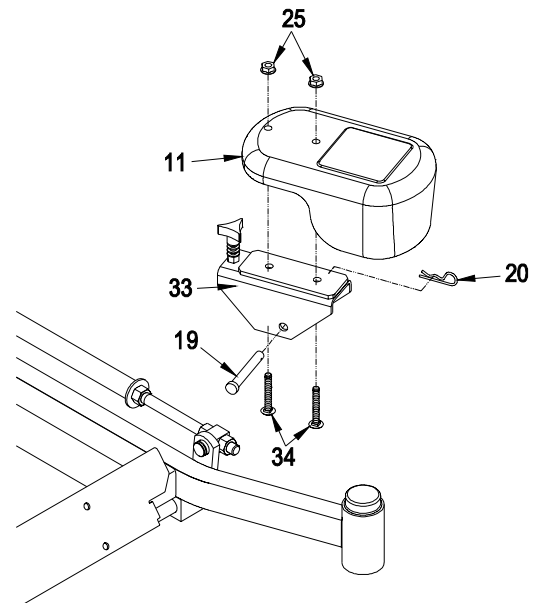



FIGURE 8
REMOVABLE WEGHT
INSTALLATION


4.7 RUN IN – 52” UNITS ONLY

1. Follow the operation instructions in Section 5 to run the unit. Run the unit with the blades and blower engaged for 2 minutes. Disengage the blades, stop engine and wait for all moving parts to stop. Remove spark plug wire(s) or remove key.
2. Remove the belt cover and check to make sure that the belt is riding near the center of the flat idler on the idler arm. If the belt is not riding near the center of the idler, remove the blower, and bend the idler arm slightly. Reinstall the blower and belt cover and perform steps 1 and 2 again to verify belt position.

5. OPERATION:

Although hazard control and accident prevention are partially dependent upon the design and configuration of the equipment, these factors are also dependent upon the awareness, concern, prudence, and proper training of the personnel involved in the operation, transport, maintenance, and storage of the equipment. It is essential that all Operator Safety Mechanisms be connected and in operating condition prior to use for mowing. Refer to the Operator’s Manual for the mower for additional hazard control and accident prevention information.

 WARNING
POTENTIAL HAZARD <ul style="list-style-type: none">◆ An uncovered discharge opening will allow objects to be thrown in operator’s or bystander’s direction. Also, contact with blade could occur.
WHAT CAN HAPPEN <ul style="list-style-type: none">◆ Thrown objects or blade contact can cause serious injury or kill you or bystanders.
HOW TO AVOID THE HAZARD <ul style="list-style-type: none">◆ Never operate mower unless discharge chute or entire grass collection system is installed.

 DANGER
POTENTIAL HAZARD <ul style="list-style-type: none">◆ There are rotating blades in the blower and under the mower deck.
WHAT CAN HAPPEN <ul style="list-style-type: none">◆ Blade contact can cause serious operator or bystander injury or even death.
HOW TO AVOID THE HAZARD <ul style="list-style-type: none">◆ Keep hands and feet out of blower openings and out from under the mower or mower deck.◆ Shut off the deck drive, stop the engine, and wait for all moving parts to stop before clearing obstructions.

5.1 PRE-START

Note: When mowing in areas with sandy soil, use low lift blades on the cutting deck and higher cutting heights to minimize wear on the blower components.

1. Read the operator’s manual for your mower and familiarize yourself with all controls before operating the machine. Make sure that you understand the controls, their locations, their functions, and their safety requirements.


2. Ensure the blower, belt cover, bags, tube and hood are in good condition, properly attached, and latched.

5.2 MOWING

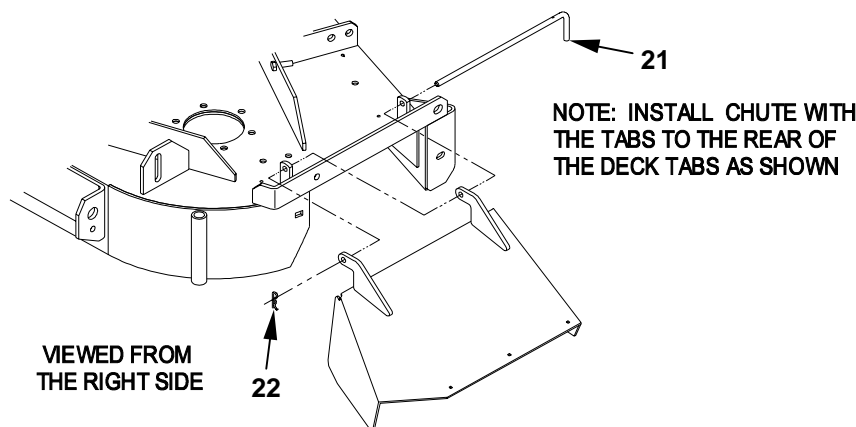
1. The Ultra Vac blower operates when deck drive is engaged. Be sure that **all** persons are **clear** of the mower deck **before engaging** the cutting blades. Set the throttle to “midway” position. Pull outward on the PTO switch to the “ROTATE” position. Accelerate to full throttle to begin mowing.
2. To disengage the deck drive and blower, set the throttle to “idle” position. Push in on the PTO switch to the “STOP” position to stop the cutting blades and blower. The cutting blades will require a slightly longer amount of time to come to a complete stop when the blower is installed on the deck.
3. To remove the bags, shut off deck drive, stop the engine and wait for all moving parts to stop. Open the hood and remove the bags by lifting up on the rear of the bag, then unhooking the front clip. Empty bags by inverting them.
4. Reinstall bags, close and latch the hood before continuing mowing.

5.3 BAGGER REMOVAL FOR SIDE DISCHARGE:

1. Shut off the deck drive, stop engine and wait for all moving parts to stop. Remove spark plug wire(s) or remove key.
2. Remove the discharge tube by releasing the latch at the blower. Slide the tube off the blower outlet and remove the upper end from the hood.
3. Remove the Belt cover by loosening the knobs. For 60” units the outboard knob does not need to be removed completely to remove the belt cover.

 CAUTION	
POTENTIAL HAZARD	
◆ The deck sheave will become very hot	
WHAT CAN HAPPEN	
◆ Touching a hot deck sheave can cause severe burns.	
HOW TO AVOID THE HAZARD	
◆ Allow the deck sheave to cool completely before removing the belt.	

4. Pull the idler release handle and remove the belt from the upper groove of the deck sheave.
5. Unlatch the front end of the blower. Pivot the blower back and lift it off the deck.
6. Install the discharge chute using the chute pivot pin and hairpin (See Figure 9).




**FIGURE 9
DISCHARGE CHUTE INSTALLATION**

7. Re-install the plastic belt cover and tighten the knobs.
8. Remove the hair pins and clevis pins holding the hood assembly to the mount weldment.
9. Lift the bag and hood assembly off the mount.
10. For Lazer Z and Lazer Z XP units, the removable weights must be removed from above the caster wheels. Loosen the clamping knobs until the weight can be moved relative to the caster arm. Remove the hairpins and clevis pins that hold the weights to the caster arms. Carefully lift the weights off of the caster arms.

Note: The removable weights are heavy. Use care when lifting them. Make sure that you can hold them securely before lifting them. Use caution when positioning your hands so that you do not set them down on your hands or fingers.


Note: The portions of the Ultra Vac bagger that are not bolted to the mower are designed to be installed or removed in their entirety. Do not operate the mower with only a portion of the Ultra Vac installed.

 CAUTION	
POTENTIAL HAZARD	<ul style="list-style-type: none"> ◆ Caster weights installed without bagger may cause Loss of Traction and Steering control.
WHAT CAN HAPPEN	<ul style="list-style-type: none"> ◆ Loss of control can result in an accident, which may cause Death, Injury, or property damage.
HOW TO AVOID THE HAZARD	<ul style="list-style-type: none"> ◆ Install caster weights ONLY when bagger is installed.

11. The machine can now be used for side discharge mowing.

5.4 TRANSPORTING

- 5.4.1 Transporting a Unit: Use a heavy-duty trailer or truck to transport the machine. Lock brake and block wheels. Securely fasten the machine to the trailer or truck with straps, chains, cable, or ropes. Be sure that the trailer or truck has all necessary lighting and marking as required by law. Secure a trailer with a safety chain.

 CAUTION	
POTENTIAL HAZARD	<ul style="list-style-type: none"> ◆ This unit does not have proper turn signals, lights, reflective markings, or a slow moving vehicle emblem. These items are required to drive on a public street or roadway.
WHAT CAN HAPPEN	<ul style="list-style-type: none"> ◆ Driving on a street or roadway without such equipment is dangerous and can lead to accidents causing personal injury. ◆ Driving on a street or roadway without such equipment may also be a violation of State laws and the operator may be subject to traffic tickets and/or fines.
HOW TO AVOID THE HAZARD	<ul style="list-style-type: none"> ◆ Do not drive a unit on a public street or roadway.



WARNING

POTENTIAL HAZARD

- ◆ Loading a unit on a trailer or truck increases the possibility of backward tip-over.

WHAT CAN HAPPEN

- ◆ Backward tip-over of the unit could cause serious injury or death.

HOW TO AVOID THE HAZARD

- ◆ Use extreme caution when operating a unit on a ramp.
- ◆ Use only a single, full width ramp; **DO NOT** use individual ramps for each side of the unit.
- ◆ If individual ramps must be used, use enough ramps to create an unbroken ramp surface wider than the unit.
- ◆ **DO NOT** exceed a 15° angle between ramp and ground or between ramp and trailer or truck.
- ◆ Avoid sudden acceleration while driving unit up a ramp to avoid tipping backward.
- ◆ Avoid sudden deceleration while backing unit down a ramp to avoid tipping backward.

- 5.4.2 Loading a Unit: **Empty grass bags before attempting to load unit on trailer or truck.** Use extreme caution when loading units on trailers or trucks. One full width ramp that is wide enough to extend beyond the rear tires is required instead of individual ramps for each side of the unit. The lower rear section of the tractor frame extends back between the rear wheels and serves as a stop for tipping backward. Having a full width ramp provides a surface for the frame members to contact if the unit starts to tip backward. If it is not possible to use one full width ramp, use enough individual ramps to simulate a full width continuous ramp.

Ramp should be long enough so that the angles between the ramp and the ground and the ramp and the trailer or truck do not exceed 15°. A steeper angle may cause mower deck components to get caught as the unit moves from ramp to trailer or truck. Steeper angles may also cause the unit to tip backward. If loading on or near a slope, position the trailer or truck so it is on the down side of the slope and the ramp extends up the slope. This will minimize the ramp angle. The trailer or truck should be as level as possible.

DO NOT attempt to turn the unit while on the ramp, you may lose control and drive off the side.

Avoid sudden acceleration when driving up a ramp and sudden deceleration when backing down a ramp. Both maneuvers can cause the unit to tip backward.

6. MAINTENANCE:

6.1 PERIODIC MAINTENANCE

IMPORTANT: Before conducting any maintenance, shut off deck drive, stop engine and wait for all moving parts to stop. Remove spark plug wire(s) or remove key.


- 6.1.1 Blower Housing/Impeller **Service Interval: Daily.**

Inspect for wear or damage daily. Replace or repair worn parts as needed.

Note: When mowing in areas with sandy soil, use low lift blades on the cutting deck and higher cutting heights to minimize wear on the blower components.

6.1.2 Idler Bushings: **Service Interval: 25 Hours.**
Lubricate with 1-2 pumps of SAE No. 2 multi-purpose grease.

6.1.3 Bags: **Service Interval: Daily.**
Inspect the bags for wear, tears, or damage.

 WARNING	
POTENTIAL HAZARD	
<ul style="list-style-type: none"> ◆ Under normal use the bag will deteriorate and wear. Objects could exit a worn bag at high speeds. 	
WHAT CAN HAPPEN	
<ul style="list-style-type: none"> ◆ Thrown objects can cause serious injury or kill you or bystanders. 	
HOW TO AVOID THE HAZARD	
<ul style="list-style-type: none"> ◆ Check bag frequently for tears and holes. Replace worn bag. 	

6.1.4 Belts. **Service Interval: 50 Hours.**

a) **For LHP units only** - Inspect the belt position on the idler arm.


The idler arm may become bent during use or transport. A bent idler arm could cause the belt to jump off of the idler and be damaged.

- 1) Make sure the belt cover is installed and run the blower for one to two minutes.
- 2) **Shut off the deck drive, stop engine and wait for all moving parts to stop. Remove spark plug wire(s) or remove key.** Remove the belt cover and check to make sure that the belt is riding near the center of the flat idler on the idler arm.
- 3) If the belt is not riding near the center of the idler, remove the blower, and bend the idler arm slightly.
- 4) Reinstall the blower and belt cover and repeat steps 1-3 until the belt is positioned near the center of the idler.

b) **All Units** - Inspect the belt for damage or wear. Replace belt with one of the following.

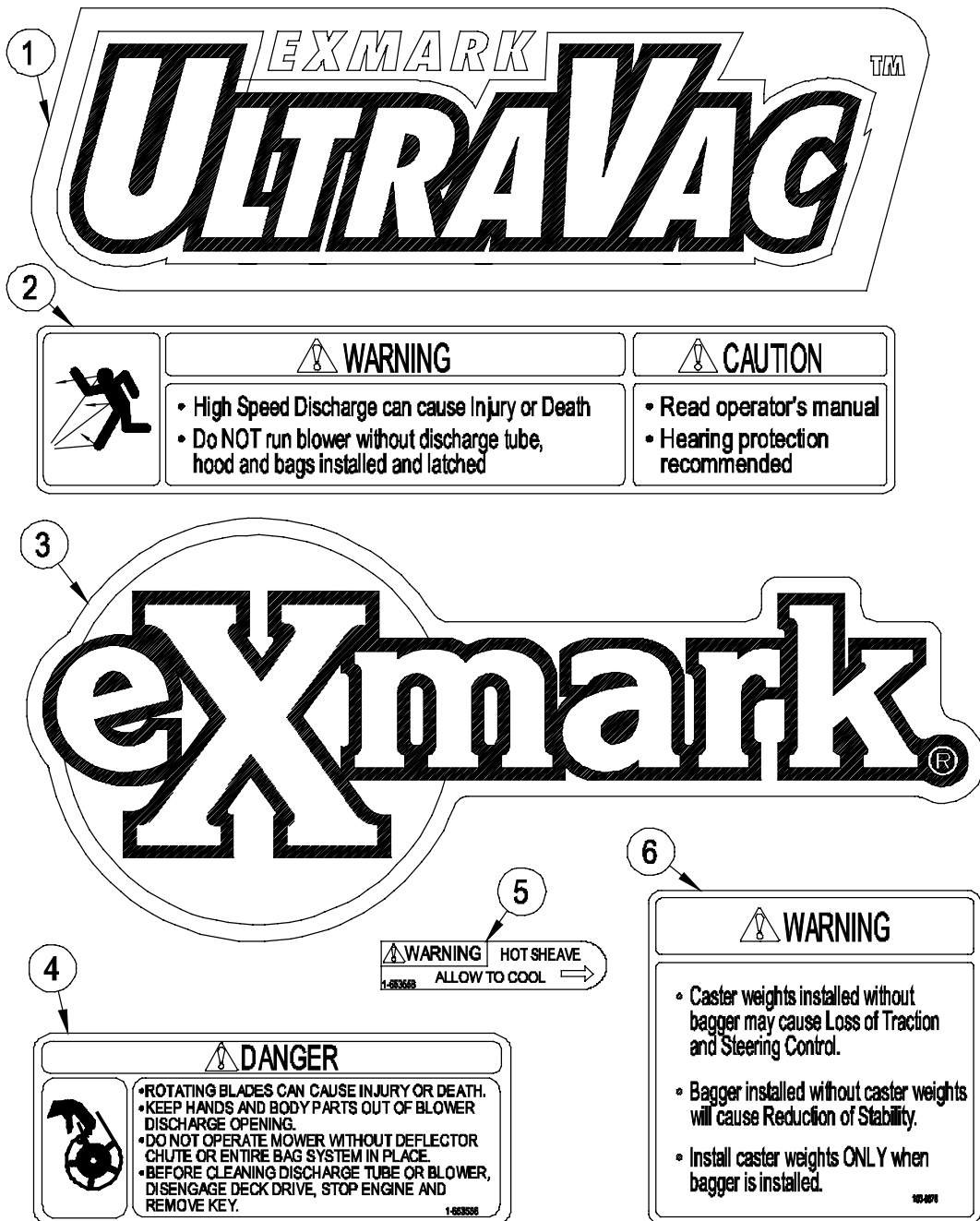
44" deck – PN 1-653332	60" deck – PN 103-0866
48" deck – PN 1-653333	72" deck – PN 103-0867
52" deck – PN 1-653438	

6.1.5 Clean muffler and rear frame area: **Service Interval: Daily**

 WARNING	
POTENTIAL HAZARD	
<ul style="list-style-type: none"> ◆ Operating engine parts, especially the muffler, become extremely hot. 	
WHAT CAN HAPPEN	
<ul style="list-style-type: none"> ◆ Severe burns can occur on contact. ◆ Debris, such as leaves, grass, brush, etc. can catch fire. 	
HOW TO AVOID THE HAZARD	
<ul style="list-style-type: none"> ◆ Allow engine parts, especially the muffler, to cool before touching. ◆ Remove accumulated debris from muffler and engine area. ◆ Install and maintain in working order a spark arrester before using equipment on forest-covered, grass-covered, brush-covered unimproved land. 	

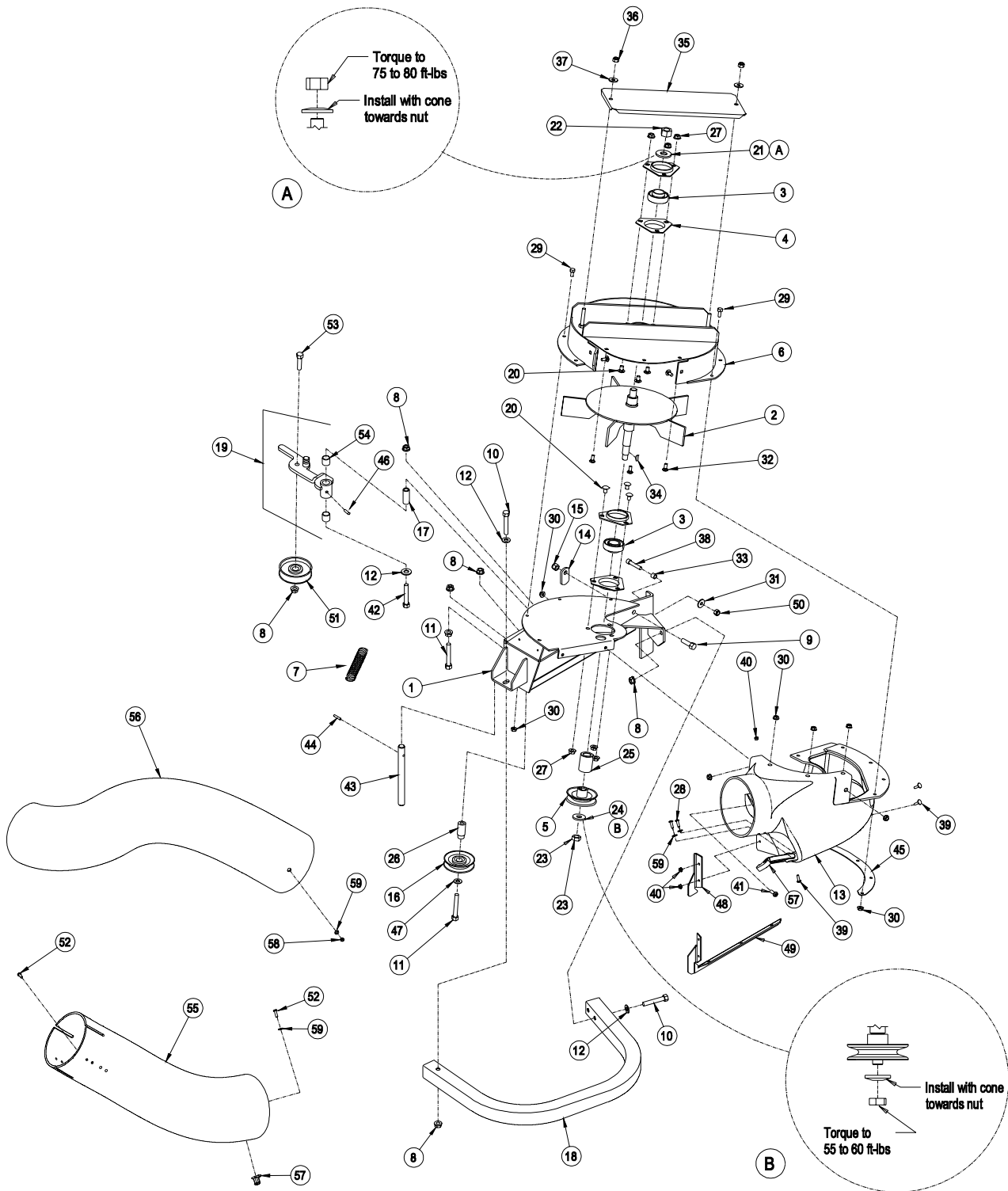
7. PARTS LISTS

7.1 DECALS



Ref. No.	Part No.	Description	Qty. Req'd.
1	1-653557	Decal, Ultra Vac.....	1
2	103-0220	Decal, Warning Discharge.....	1
3	1-653546	Decal, Exmark 44,48,&52	1
	103-0438	Decal, Exmark 60 & 72	1
4	1-653556	Decal, Warning Impeller.....	2
5	1-653558	Decal, Hot Sheave.....	1
6	103-0878	Decal, Caster Weights.....	1

7.2 BLOWER ASSEMBLY – LAZER Z HP 44, 48, 52 & LAZER Z 52



7.2 BLOWER ASSEMBLY – LAZER Z HP 44, 48, 52 & LAZER Z 52 (cont.)

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1∇	1-652340-03	Blower mount wldmt 44", 48".	1	35	1-654560	Cover, bearing (1-653485) with decal	1
∇	1-652444-03	Blower mount wldmt 52".....	1	36	3296-29	5/16-18 nyloc nut	2
2	1-652351	Impeller wldmt.....	1	37	3256-3	5/16x7/8 OD flat washer.....	2
3	1-653346	Bearing, SPH. OD.....	2	38	3274-18	5/16-18x1.25 Soc. Hd Screw....	1
4	1-513013	Housing, flange.....	4	39	1-803075	#10-24x.75 CRTH Screw	
5♦	103-1047	Sheave, blower	1			LHP 44 & 48 units.....	3
6	1-654459	Upper housing weldment (1-652345) with decals.....	1			LHP 52 units.	5
7	1-653331	Spring, idler.....	1			LZ 52 units.....	8
8	3290-357	3/8-16 whizlock nut	8	40	1-809112	#10-24 whizlock nut.....	3
9	323-7	3/8-16 x 1.25 screw	1	41	1-803076	1/4-20x.75 CRTH Screw.....	2
10	323-11	3/8-16 x 2.25 screw	3	42	3274-107	3/8-16x1.75 Soc But Hd Screw	1
11	323-12	3/8-16 x 2.50 screw	2	43	1-353050	Pin, Grass Catcher	1
12	3256-4	Flat washer -.438x1.00x.083	4	44	1-806323	Roll Pin	1
13	1-653356	Chute, blower.....	1	45	1-653596-03	Plate, Blower Backing.....	1
14	1-353054	Latch, grass catcher	1	46	1-811006	Zerk, 1/8 – 28 straight.....	1
15	3296-39	3/8-16 nyloc nut	1	47	3256-24	3/8 Flat washer	1
16	1-653322	Idler, inside.....	1	48	1-653443-03	Plate, Filler LHP 52 only.....	1
17	103-0130	Bushing, idler pivot.....	1	49	103-1042-03	Plate, blocker LZ 52 only.....	2
18	1-653352-01	Bumper	1	50	3217-6	5/16-18 nut	1
19	1-654559	Idler Assy with bushings, zerk, and decal	1	51	103-1103	Idler, Flat.....	1
20	3230-18	5/16-18 x .62 carriage bolt	6	52	3290-500	#10-24 x .62 CRPH Screw	4
21	1-513208	Spring - disk.....	1	53	323-8	3/8 – 16 x 1.50 screw	1
22	3219-6	5/8-18 nut.....	1	54	1-653600	Bearing	2
23	3220-5	1/2-20 Jam nut.....	1	55	1-653407	Tube, lower LHP 44,48,52.....	1
24	1-513435	Spring - disk.....	1		103-0812	Tube, lower LZ 52.....	1
25	1-653365	Spacer.....	1	56	1-653406	Tube, upper LHP 44",48".....	1
26	1-653366	Hub	1		• 1-653540	Tube, upper LHP 52".....	1
27	32128-20	5-16-18 whizlock nut.....	6		• 103-0811	Tube, upper LZ 52".....	1
28	3290-500	#10-24x.62 CRPH Screw.....	2	57	1-653429	Latch Assy (Latch & Catch)	1
29	321-3	1/4-20x.62 Hex SCREW	8	58	3296-2	#10-24 Nyloc Nut.....	3
30	32128-33	1/4-20 whizlock nut	15	59	3256-14	#10 Flat Washer	6
31	1-303334	5/16 Spring disk washer.....	1		103-0401	Blower Assy, 44/48 (includes items 1-54)	1
32	3229-11	1/4-20x.62 Carr. bolt RHSN...5			103-0400	Blower Assy, LHP 52 (includes items 1-54)	1
33	103-0126	Bushing,Locator	1		103-1209	Blower Assy, LZ 52 (includes items 1-54)	1
34	3257-32	5/8x3/16 #61 Woodruff key... 1					

Exmark red touch up spray paint - P/N 1-850337

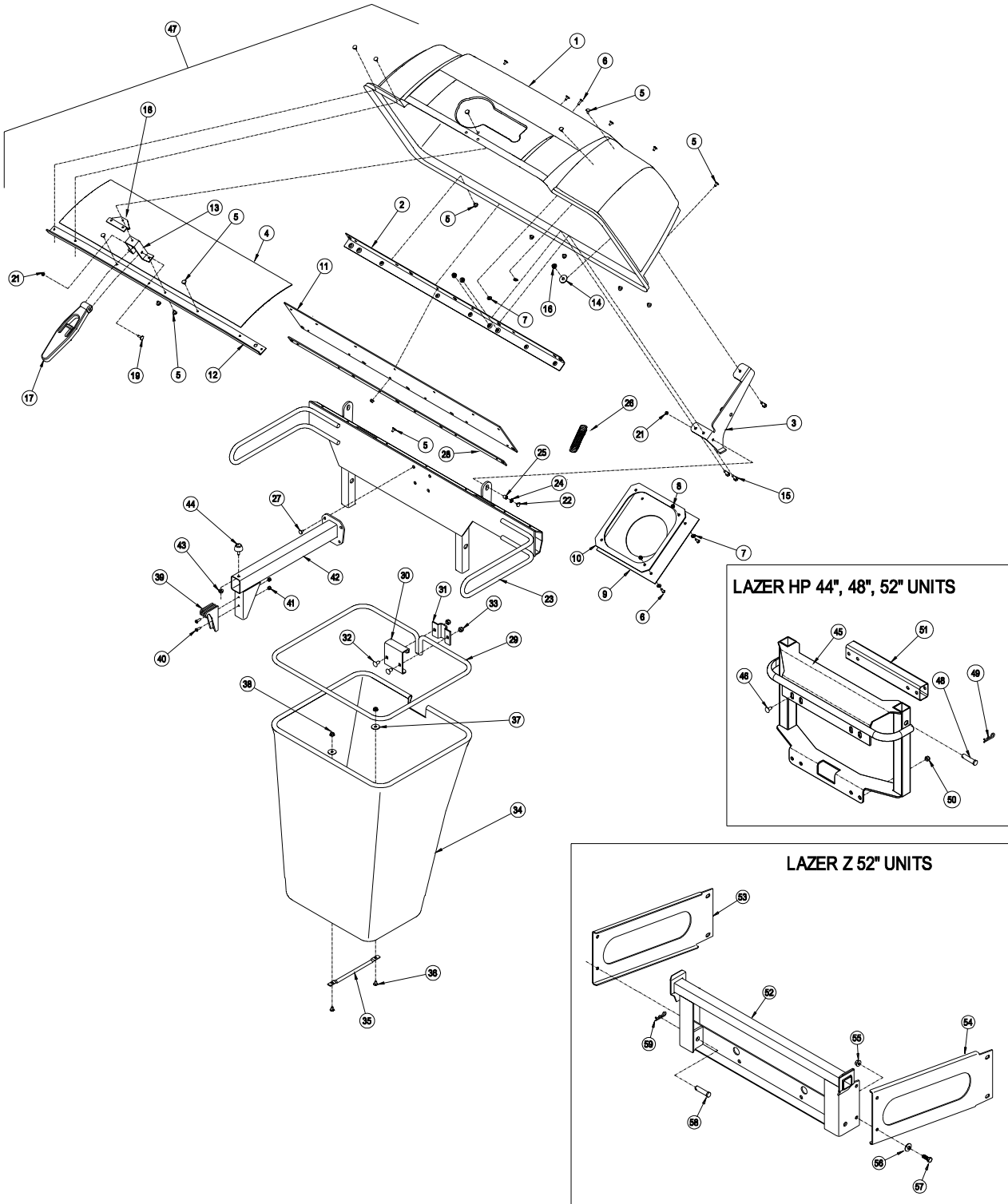
♦ Use grease on bore of sheave.

∇ Includes items 43 and 44

- Also used in Adapter Kit 103-0328 on 48" deck Lazer HP model LHP4818KC Serial Number 176621 & below.

Kit 103-0583 is available to add or repair the welded-on accessory mounting tube on all 44"-72" decks.

7.3 HOOD AND BAG ASSEMBLY – LAZER Z HP 44, 48, 52, & LAZER Z 52



7.3 HOOD AND BAG ASSEMBLY – LAZER Z HP 44, 48, 52, & LAZER Z 52 (cont.)

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	1-653396	Hood	1	31	114974-03	Clamp	1
2	1-653397-03	Stiffener, bagger top.....	1	32	3230-1	5/16-18x.75 Carriage bolt	2
3∇	1-652395-03	Hinge wldmt	2	33	3296-29	5/16-18 nyloc nut	2
φ	103-0825-03	Hinge wldmt RH	2	34∇	1-654389	Cloth bag	1
φ	103-0826-03	Hinge wldmt LH	2	φ	103-0431	Cloth bag	1
4	114967	Screen	1	35	1-653566	Bag handle.....	1
5	114439	3/16x.5 Pop rivet	38	36	3229-1	1/4-20x.75 Carriage bolt	2
6	1-803075	#10-24x.75 CRTH Screw	10	37	1-653036	Washer .344x1.75x.062 pltd... 2	
7	3256-14	.219x.500x.049 Flat washer ..	14	38	3296-42	1/4-20 nyloc nut.....	2
8	3296-2	#10-24 nyloc nut.....	10	39	1-653404	Catch	1
9	1-653561	Seal, chute	1	40	3290-500	#10-24x.625 CRPH Screw..... 2	
10	1-653598-03	Clamp, seal	1	41	1-809112	#10-24 whizlock nut	2
11∇	1-653425	Seal	1	42	1-652414-03	Bag support wldmt	1
φ	103-1346	Seal	1	43	32128-33	1/4-20 whizlock nut	1
12	1-653400-03	Support, screen	1	44	1-523420	Bumper	1
13	1-653519	Mount, latch.....	1	45∇	1-652308-03	Bagger mount wldmt.....	1
14	1-653036	Washer .344x1.75x.062 pltd .2	2	46	322-5	5/16-18x1 Screw 44", 48" only 8	
15	321-4	1/4-20x.75 Hex Head Screw .6	6		322-9	5/16-18x1.75 Screw (LHP 52"only)8	
16	32128-33	1/4-20 whizlock nut.....	6	•	322-12	5/16-18x2.50 Screw.....	8
17	1-653403	Latch.....	1	47◆	1-654597	Hood assembly – service only 1	
18	1-653535	Latch reinforcement	1	48∇	1-808289	Clevis Pin.....	2
19	321-11	1/4-20x2.0 Hex Head Screw .1	1	49	1-806005	Hair Pin	2
21	3296-42	1/4-20 nyloc nut.....	3	50	32128-20	5/16-18 whizlck nut (LHP 52"only)4	
22	321-6	1/4-20x1.00 Hex Head Screw2	2	51•	103-0325-03	Tube, Spacer	2
23∇	1-652305-03	Bagger upright wldmt	1	52φ	103-0429-03	Bagger Mount Wldmt.....	1
φ	103-1310-03	Bagger upright wldmt	1	53φ	103-0398-03	Bracket Frame LH	1
24	3256-2	Flat washer .312x.734x.065...2	2	54φ	103-0399-03	Bracket Frame RH.....	1
25	1-633545	Spacer	2	55φ	3290-357	3/8-16 Whizlock nut	8
26	1-653544	Spring	2	56φ	98-5975	Spring disk washer	8
27	322-2	5/16-18x.62 Hex Hd Screw 4	4	57φ	323-6	3/8-16-1.0 Screw	8
28	1-653528-03	Plate, backing.....	1	58φ	283-69	Clevis Pin.....	2
29	1-653529-03	Frame, bag.....	1	59*	1-654390	Bag Assembly.....	1
				∇			
30	114973-03	Hanger, bag.....	1	*φ	103-0435	Bag Assembly.....	1

◆ Includes items 1,2,4,7,12,13,18 riveted together and Decal

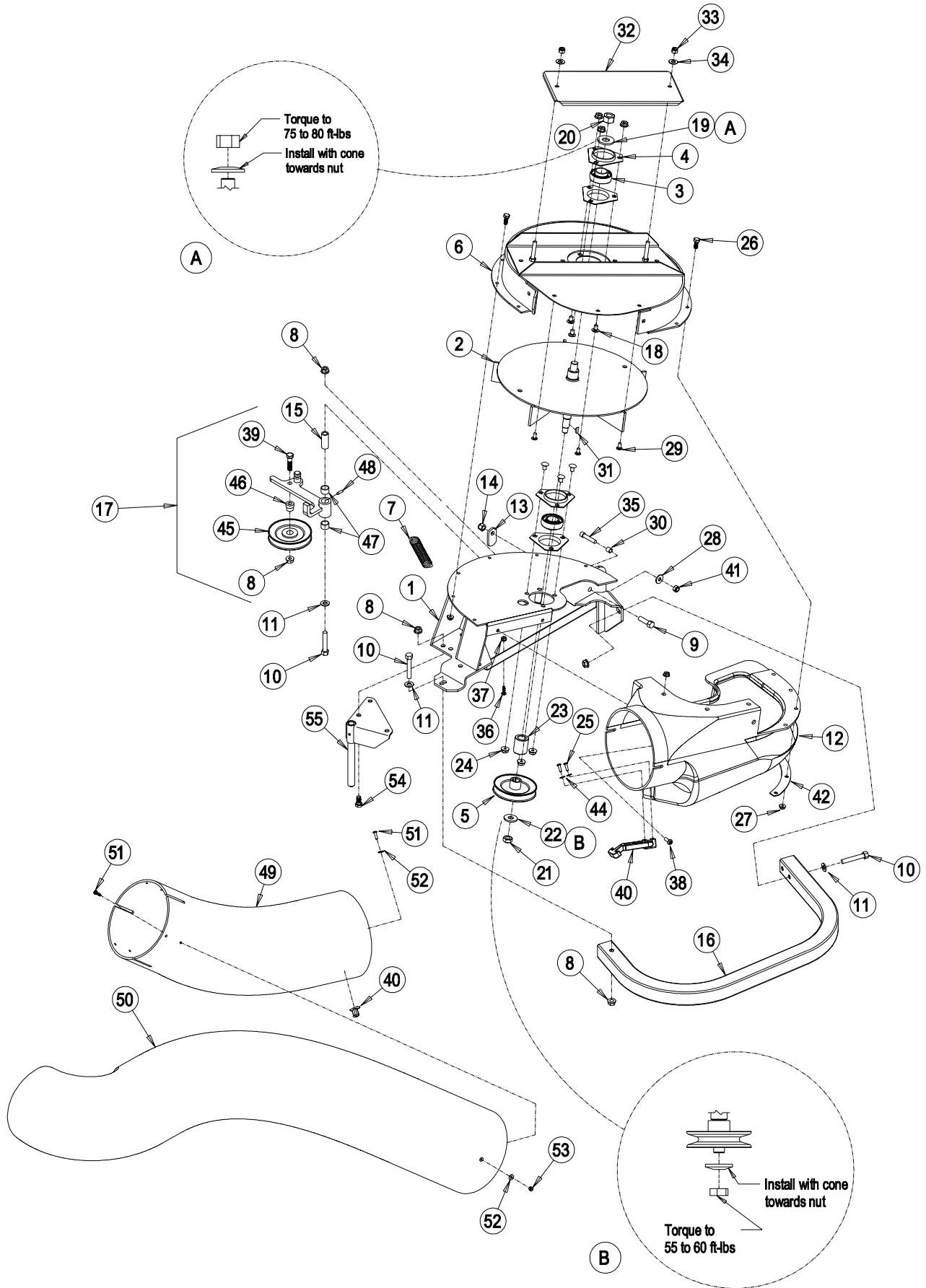
• Used in Adapter Kit 103-0328 for Lazer HP model LHP4818KC below Serial Number 176621 only

* Includes items 29 through 38.

∇ Items on Lazer Z HP units only.

φ Items on Lazer Z 52" units only.

7.4 BLOWER ASSEMBLY – LAZER Z 60 & 72 and LAZER Z XP 60 & 72



7.4 BLOWER ASSEMBLY – LAZER Z 60 & 72 and LAZER Z XP 60 & 72 (cont.)

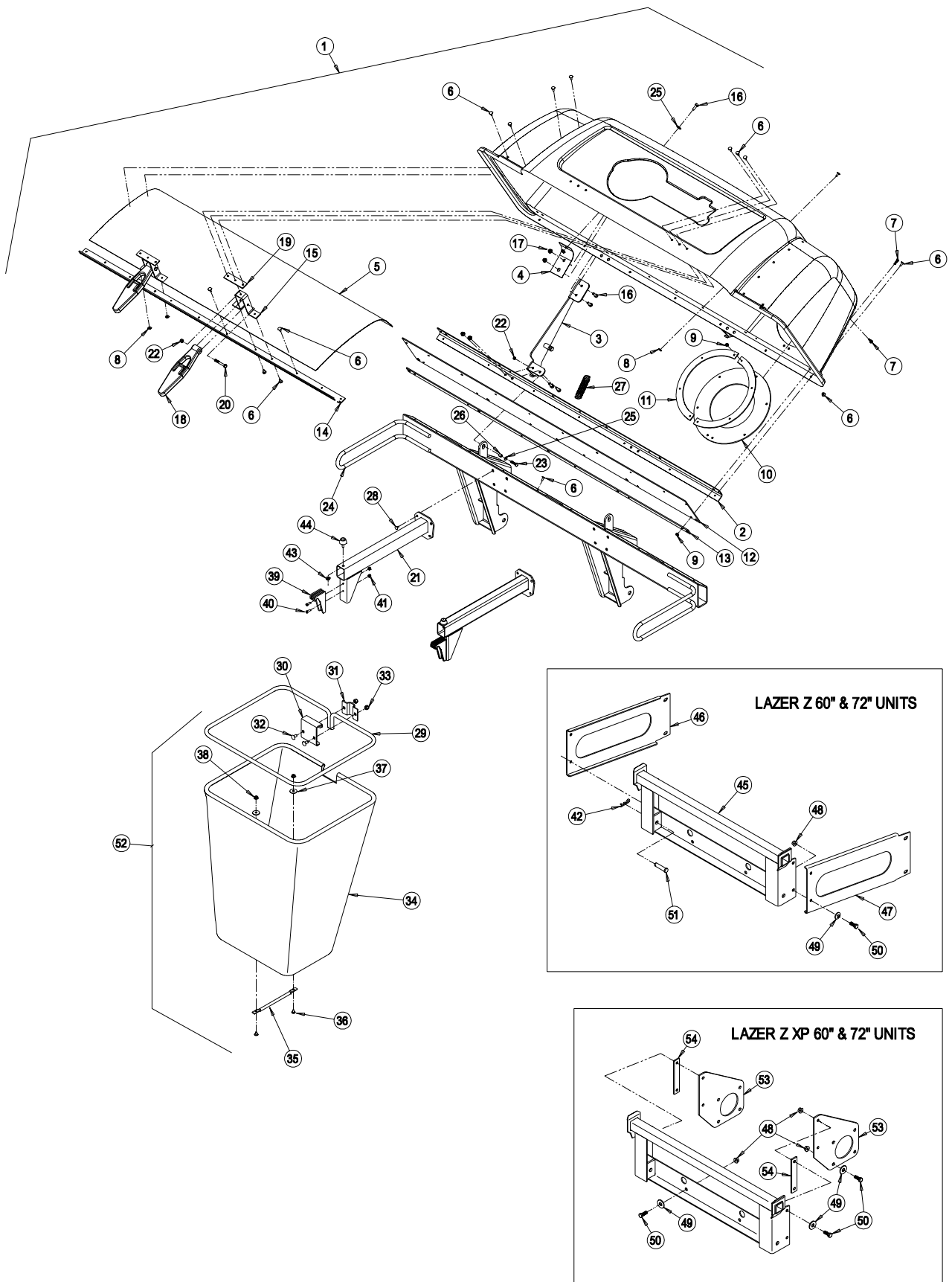
Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1	103-0454-03	Blower mount wldmt 60" & 72" .1		29	3229-11	1/4-20x.62 Carr bolt RHSN.....5	
2	103-0455	Impeller wldmt..... 1	1	30	103-0126	Bushing, Locator..... 1	
3	1-653346	Bearing, SPH. OD..... 2	2	31	3257-32	5/8x3/16 #61 Woodruff key 1	
4	1-513013	Housing, flange..... 4	4	32	103-1094	Cover, bearing (103-1030-03) with decal..... 1	
5♦	103-0456	Sheave, blower 1	1	33	3296-29	5/16-18 nyloc nut 2	
6	103-0449	Upper housing weldment (103-0457-03) with decals 1	1	34	3256-3	5/16x7/8 OD flat washer 2	
7	1-653331	Spring, idler..... 1	1	35	3274-18	5/16-18x1.25 Soc. Hd Screw.... 1	
8	3290-357	3/8-16 whizlock nut 8	8	36	1-803075	#10-24x.75 CRTH Screw..... 3	
9	323-7	3/8-16 x 1.25 screw 1	1	37	1-809112	#10-24 whizlock nut..... 3	
10	323-11	3/8-16 x 2.25 screw 4	4	38	1-803076	1/4-20x.75 CRTH Screw..... 2	
11	3256-4	Flat washer -.438x1.00x.083 4	4	39	323-8	3/8 – 16 x 1.50 screw 1	
12	103-0426	Chute, blower..... 1	1	40	1-653429	Latch Assy (Latch & Catch) 1	
13	1-353054	Latch, grass catcher 1	1	41	3217-6	5/16-18 nut 1	
14	3296-39	3/8-16 nyloc nut 1	1	42	103-0461-03	Plate, Blower Backing..... 1	
15	1-603044	Bushing, idler pivot..... 1	1	44	3256-14	#10 Flat washer 2	
16	103-0458-01	Bumper 1	1	45	103-0483	Idler..... 1	
17	103-0448	Idler Assy with bushings (103-0462-03) zerk, & decal.. 1	1	46	1-653367	Hub, spacer 1	
18	3230-18	5/16-18 x .62 carriage bolt 6	6	47	1-653600	Bearing 2	
19	1-513208	Spring - disk..... 1	1	48	302-19	Zerk, 1/8 – 28 straight..... 1	
20	3219-6	5/8-18 nut..... 1	1	49	103-2420	Tube, lower 1	
21	3220-5	1/2-20 Jam nut..... 1	1	50	103-0424	Tube, upper 60" 1	
22	1-513435	Spring - disk..... 1	1		103-0425	Tube, upper 72" 1	
23	103-0460	Spacer..... 1	1	51	3290-500	#10-24 x .62 CRPH Screw 7	
24	32128-20	5-16-18 whizlock nut..... 6	6	52	3256-14	#10 Flat Washer 7	
25	3290-500	#10-24x.62 CRPH Screw..... 2	2	53	3296-2	#10-24 Nyloc Nut..... 6	
26	321-3	1/4-20x.62 Hex Screw 10	10	54	323-4	3/8-16 x .75 Hex Hd Screw..... 3	
27	32128-33	1/4-20 whizlock nut 17	17	55	103-0445-03	Mount Pin weldment..... 1	
28	1-303334	5/16 Spring disk washer 1	1	56	103-0450	Blower Assy, 60 & 72 (includes items 1-48 & decals) .1	

Exmark red touch up spray paint - P/N 1-850337

- ♦ Use grease on bore of sheave.

Kit 103-0583 is available to add or repair the welded on accessory mounting tube on all 44"-72" decks.

7.5 HOOD AND BAG ASSEMBLY – LAZER Z 60 & 72 and LAZER Z XP 60 & 72



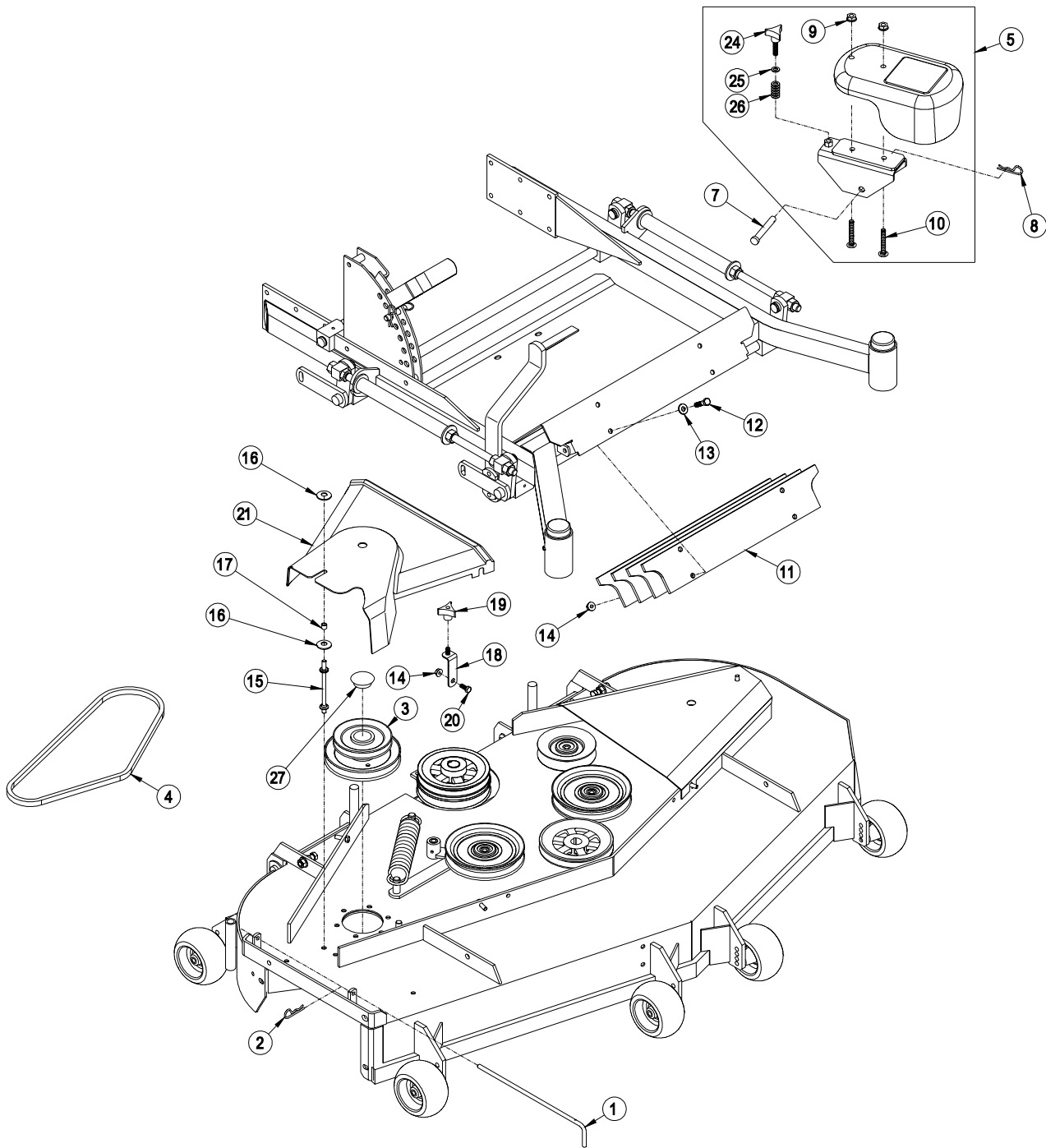
7.5 HOOD AND BAG ASSEMBLY – LAZER Z 60 & 72 and LAZER Z XP 60 & 72 (cont.)

Ref. No.	Part No.	Description	Qty. Req'd.	Ref. No.	Part No.	Description	Qty. Req'd.
1◆	103-0437	Hood Assembly	1	30	114973-03	Hanger, bag	1
2	103-0382-03	Stiffener, Bagger top	1	31	114974-03	Clamp	1
3	103-0430-03	Hinge wldmt.....	2	32	3230-1	5/16-18x.75 Carriage bolt	2
4	103-0391	Reinforcement, Hood	2	33	3296-29	5/16-18 nyloc nut	2
5	103-0440	Screen, Bagger	1	34	103-0431	Cloth bag	1
6	114439	Rivet, Pop 3/16x.5	55	35	1-653566	Bag handle.....	1
7	1-803075	#10-24x.75 CRTH Screw	13	36	3229-1	1/4-20x.75 Carriage bolt	2
8	3256-14	.219x.500x.049 Flat washer ...	15	37	1-653036	Washer .344x1.75x.062 pltd...	2
9	3296-2	#10-24 Nyloc Nut.....	13	38	3296-42	1/4-20 nyloc nut.....	2
10	103-0439	Seal, Tube	1	39	1-653404	Catch	1
11	103-0378	Clamp, Seal.....	2	40	3290-500	#10-24x.625 CRPH Screw.....	2
12	103-0451	Seal, Hinge.....	1	41	1-809112	#10-24 whizlock nut	2
13	103-0452-03	Plate, Backing	1	42	1-806005	Hairpin	2
14	103-0380-03	Support, Screen	1	43	32128-33	1/4-20 whizlock nut.....	1
15	103-0379	Bracket, Mount	2	44	1-523420	Bumper	1
16	321-4	1/4-20x.75 Hex Head Screw ..	10	45	103-0429-03	Bagger mount weldment.....	1
17	32128-33	1/4-20 whizlock nut.....	10	46	103-0398-03	Bracket, frame LH (LZ)	1
18	1-653403	Latch.....	2	47	103-0399-03	Bracket, frame RH (LZ)	1
19	103-0376	Plate, Latch Reinforcement....	2	48	3290-357	3/8-16 whizlock nut (LZ)	8
20	321-11	1/4-20x2.0 Hex Head Screw ..	2		3290-357	3/8-16 whizlock nut (XP).....	14
21	1-652414-03	Bag Support Assembly.....	2	49	98-5975	Spring disk washer (LZ).....	8
22	3296-42	1/4-20 nyloc nut.....	3		98-5975	Spring disk washer (XP)	14
23	321-6	1/4-20x1.00 Hex Head Screw. 2		50	323-6	3/8-16x1.00 HH screw (LZ)	8
24	103-0428-03	Bagger upright wldmt	1		323-6	3/8-16x1.00 HH screw (XP) ...	14
25	3256-2	Flat washer .312x.734x.065....	4	51	283-69	Clevis pin	2
26	1-633545	Spacer	2	52*	103-0435	Bag Assembly.....	1
27	1-653544	Spring	2	53	103-1154-03	Plate Bagger Mount (XP).....	2
28	322-3	5/16-18x.75 Hex Hd Screw	8	54	103-1155-03	Spacer (XP)	2
29	1-653529-03	Frame, bag.....	1				

◆ Includes items 1,2,4,5,6,8,14,15,19 riveted together and Decal

* Includes items 29 through 38.

7.6 COMPLETING KIT ASSEMBLY – LAZER Z 52, 60, & 72; Lazer Z XP 60 & 72



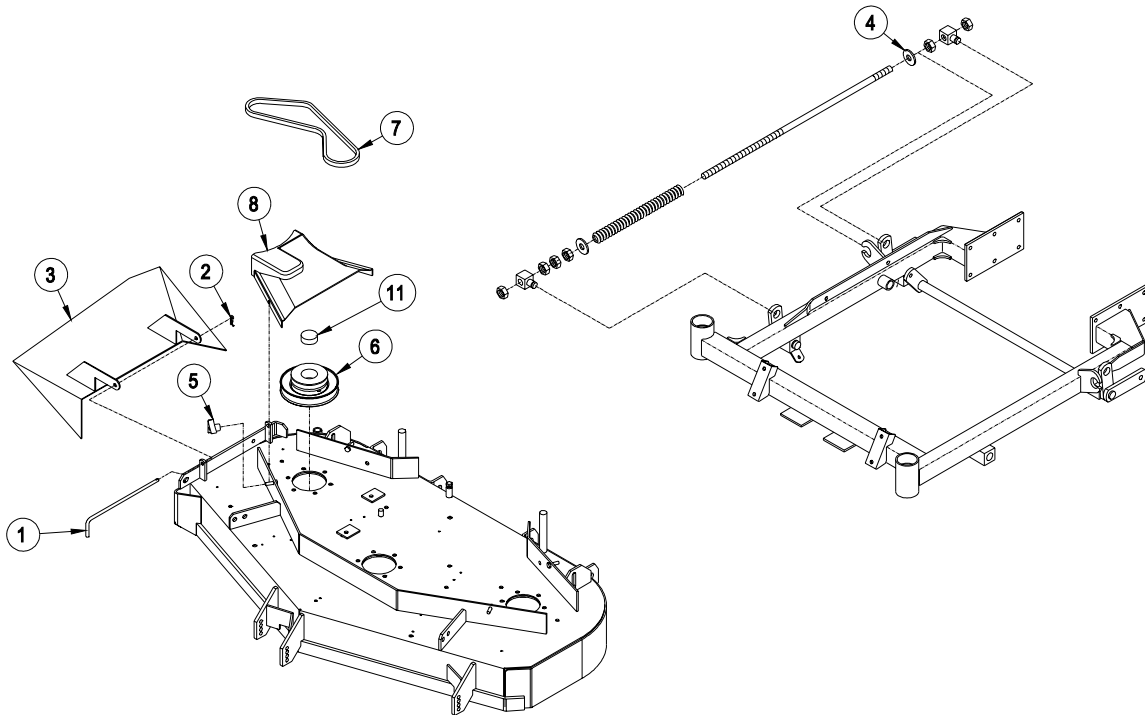
**7.6 COMPLETING KIT ASSEMBLY - LAZER Z 52, 60, & 72; LAZER Z XP 60 & 72
(cont.)**

Ref. No.	Part No.	Description	LAZER			LAZER XP	
			52"	60"	72"	60"	72"
			103-1076	103-0466	103-0903	103-1112	103-1113
1	103-0453	Pin, Chute Pivot	1	1	1	1	1
2	1-806003	Pin, Hair	1	1	1	1	1
3	103-0576	Jackshaft, LZUV 60		1		1	
	103-0577	Jackshaft, LZUV 72			1		1
	103-0578	Jackshaft, LZUV 52	1				
4	1-653438	Belt, Blower Drive 52	1				
	103-0866	Belt, Blower Drive 60		1		1	
	103-0867	Belt, Blower Drive 72			1		1
5	103-0899**	Weight, 70lb w/ 1.5" bracket		1			
	103-0900**	Weight, 70lb w/ 2.0" bracket		1			
	103-0901**	Weight, 43lb w/ 1.5" bracket	1				
	103-0902**	Weight, 43lb w/ 2.0" bracket	1		2	2	2
6	103-2180-01	Wld, Weight Bracket 2.0	1	1	2	2	2
	103-2181-01	Wld, Weight Bracket 1.5	1	1			
7	283-69	Pin, Clevis	2	2	2	2	2
8	1-806005	Hairpin, Cotter	2	2	2	2	2
9	3290-357	Nut, Whizlock 3/8-16	4	4	4	4	4
10	103-2500	Screw, Sq Head 3/8-16x2.5	4		4		4
	103-2189	Screw, Sq Head 3/8-16x4.0		4		4	
11	103-1425-03	Plate, Weight	4	4	4	4	4
12	322-7	Screw, HH 5/16 -18x1.5	4	4	4	4	4
13	3256-23	Washer, flat 5/16	4	4	4	4	4
14	32128-20	Nut, Whizlock 5/16-18	6	4	4	4	4
15	103-1028	Stud, Belt Shield		1	1	1	1
16	1-603610	Washer, Spring Disc 7/16		2		2	
17	1-633545	Spacer, Grommet		1		1	
18	103-1499	Support, Belt Cover	2				
19	1-323385	Knob	1				
20	3230-1	Screw, HH 5/16-18x.75	2				
21	103-0734	Belt Cover 52"	1				
	103-0735	Belt Cover 60"		1		1	
	103-0736	Belt Cover 72"			1		1
22*	1-543610	Washer, 1/4	2	2			
23*	323-49	Bolt, Tap 3/8-16x3.25	2	2			
24	103-2187	Knob	2	2	2	2	2
25	3256-24	Washer	2	2	2	2	2
26	103-2188	Spring	2	2	2	2	2
27	103-1279	Plug	1	1	1	1	1

* Items Not Shown. Used for mounting the bagger mount weldment to the rear of the units with Serial Numbers less than 190,000

** Includes items 6, 9, 10 weight and decal.

7.7 DRIVE KIT ASSEMBLY – LAZER Z HP 44,48



Ref. No.	Part No.	Description	Quantity Included in Each Kit			
			44"	48" (w/4" tab)	48" (w/2" tab)	52"
			103-1315	103-1313	103-1314	103-1317
1	1-653363	Pin, Chute Pivot	1	1	1	1
2	1-806003	Pin, Hair	1	1	1	1
3	1-402106	Wld, Chute 48" SD		1		
4	1-805517	2.25 O.D. Washer		1		
5	1-323385	Knob, Belt Shield	2	2	2	2
6	1-653439	Sheave, Blower drive (52")				1
	1-653362	Sheave, Blower Drive (48")		1	1	
	1-653309	Sheave, Blower Drive (44")	1			
7	1-653438	Belt, Blower (52")				1
	1-653333	Belt, Blower (48")		1	1	
	1-653332	Belt, Blower (44")	1			
8	103-1316	Cover, Belt (44" and 48")	1	1	1	
	103-1318	Cover, Belt (52")				1
9	1-653532-03	Spacer, Counterweight				1
10	322-2	5/16-18x.62 Hex Head Screw	1	1	1	1
11	103-1279	Plug	1	1	1	1

7.8 ADAPTER KIT 103-0328 For Lazer HP model LHP4818KC before serial number 176621.

Part No.	Description	Qty
103-0325-03	Tube, Spacer	2
1-653540	Tube, Upper	1
322-12	5/16-18x2.50 Screw	8

7.9 ADAPTER KIT 103-1369 For 52" Lazer Z models before serial number 260,000.

Part No.	Description	Qty
1-652375-01	Discharge Chute	1
1-805517	2.25 OD Washer	1

8. WARRANTY

Limited Warranty Exmark Commercial Turf Equipment

Exmark Mfg. Co. Inc. and its affiliate, Exmark Warranty Company, pursuant to an agreement between them, jointly warrant on the terms and conditions herein, that we will repair, replace or adjust any part manufactured by Exmark and found by us (in the exercise of our reasonable discretion) to be defective in factory material or workmanship.

This warranty is limited to one year from the date of original retail purchase (90 days for rental use) for any Exmark mower that is used for commercial or any other income producing purpose. The blade spindle assemblies will be warranted for three years, one year parts and labor with an additional two years parts only, from date of original retail purchase against defects in materials or workmanship. The frame and hydrostatic traction drive system, excluding hoses, will be warranted for two full years from date of original retail purchase against defects in materials or workmanship. We will extend the Peerless 5-speed transmission manufacturer's warranty from 90 days to one year. Belts and tires are warranted for 90 days against defects in materials or workmanship.

The engine warranty is covered by its respective engine manufacturer. Please refer to the engine manufacturer's warranty statement that is included in the literature packet. We are not authorized to handle warranty adjustments on engines. Engine warranties should be referred to the nearest authorized service outlet of the engine manufacturer.

This warranty extends only to the original retail purchaser of the equipment. This warranty may not be assigned or transferred without the prior express written consent of Exmark and Exmark Warranty Company. The warranty period commences upon the date of the original retail purchase.

The Exmark turf equipment, including any defective part, must be returned to an authorized Exmark service dealer within the warranty period. The warranty shall extend to the expense of repair or replacement (as determined by us) of the defective part, including labor. The warranty shall not extend to the expense of delivering the mower to the dealer for warranty work nor the expense of returning it back to the owner after repair or replacement. Our responsibility in respect to claims is limited to making the required repairs or replacements, and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any Exmark mower. Proof of purchase may be required by the dealer to substantiate any warranty claim. All warranty work must be performed by an authorized Exmark service dealer.

This warranty extends only to turf equipment operated under normal conditions and properly serviced and maintained. The warranty expressly does not cover: (i) any damage or deterioration due to normal use, wear and tear, or exposure; (ii) normal maintenance services, such as oil change, cleaning, lubrication; adjustment; (iii) replacement of service items, such as oil, lubricants, spark plugs, or other items subject to normal service replacement; (iv) damage or defects arising out of or relating to misuse, neglect, alteration, negligence or accident; (v) repair or replacement arising from operation of or use of the turf equipment which is not in accordance with operating instructions as specified in the operator's manual or other operational instructions provided by Exmark; (vi) repair or replacement arising as a result of any operation from turf equipment that has been altered or modified so as to, in the determination of Exmark or Exmark Warranty Company, adversely affect the operation, performance or durability of the equipment or that has altered, modified or affected the turf equipment so as to change the intended use of the product; (vii) repair or replacement necessitated by use of parts, accessories or supplies, including gasoline, oil or lubricants, incompatible with the turf equipment or other than as recommended in the operator's manual or other operational instructions provided by Exmark; (viii) repairs or replacements resulting from parts or accessories which have adversely affected the operation, performance or durability of the turf equipment; or (ix) damage or defects due to or arising out of repair of turf equipment by person or persons other than an authorized Exmark service dealer or the installation of parts other than genuine Exmark or Exmark recommended parts.

As a condition to this warranty, customer shall have read the operator's manual and shall have completed and returned to Exmark Warranty Company, within the prescribed time, the Exmark warranty registration.

The sole liability of Exmark and Exmark Warranty Company with respect to this warranty shall be repair and replacement as set forth herein. Neither Exmark nor Exmark Warranty Company shall have any liability for any other cost, loss or damage, including but not limited to, any incidental or consequential loss or damage. In particular, we shall have no liability or responsibility for: (i) expenses relating to gasoline, oil or lubricants; (ii) loss, cost or expense relating to transportation or delivery of turf equipment from the location of owner or location where used by owner to or from any authorized Exmark service dealer; (iii) travel time, overtime, after hours time or other extraordinary repair charges or charge relating to repairs or replacements outside of normal business hours at the place of business of the authorized Exmark service dealer; (iv) rental of like or similar replacement equipment during the period of any warranty, repair or replacement work; (v) any telephone or telegram charges or travel charges; (vi) loss or damage to person or property other than that covered by the terms of this warranty; (vii) any claims for lost revenue, lost profit or additional cost as a result of a claim of breach of warranty; or (viii) attorney's fees.

There are no representations or warranties which have been authorized and provided to the buyer of the turf equipment, other than as set forth in this warranty. Any and all statements or representations made by any seller of this equipment, including those set forth in any sales literature or made orally by any sales representative, are superseded by the terms of this warranty. Any affirmation of fact or promise made by Exmark, Exmark Warranty Company or any of their representatives to the buyer which relates to the goods that are the subject of this warranty shall not be regarded as part of the basis of the bargain and shall not be deemed to create any express warranty that such goods shall conform to the affirmation or promise.

THERE ARE NO UNDERSTANDINGS, AGREEMENTS, REPRESENTATIONS, OR WARRANTIES, EXPRESS OR IMPLIED (INCLUDING BUT NOT LIMITED TO ANY REGARDING THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE), NOT SPECIFIED HEREIN, RESPECTING THE EQUIPMENT WHICH IS THE SUBJECT OF THIS WARRANTY.

This warranty applies to all Exmark turf equipment sold in the United States and Canada and intended to be used for commercial purposes.

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LINE OF PRODUCTS FOR TURF CARE**

LAZER Z[®]

LAZER Z[®] HP

LAZER Z[®] XP

TURF RANGER[®]

TURF TRACER[®]

TURF TRACER[®] HP

VIKING HYDRO

METRO[®]

METRO[®] HP

SELF STEERING SULKY

ULTRA VAC[™]

GRASS CATCHER

MICRO-MULCH[™] ACCESSORY

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BEATRICE, NE 68310**

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